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WINCHESTER

ANOTHER SUCCESSFUL CONFERENCE

The papers presented at the conference fitted so well together they provided a coherence that ensured a successful wekend. Those who attended not only were indebted to the speakers but also to Mr Boorman and Dr Whittet who collaborated closely in formulating the programme. Winchester is indeed very fortunate in having a core of dedicated historians who cooperate so enthusiastically together. Brief abstracts from some of the papers are included in this "Historian" others will be included in later issues.

Again special mention must be made of the sponsor Win Pharm whose continued support helps to enhance the social activities on these occasions.

It was appropriate that the Society should chose as its chief guests an eminent local general practitioner and his wife. Sir Ronald Gibson CBE is a former chairman of the Standing Medical Advisory Committee, a member of the Central Health Service Council and the senior warden, Society of Apothecaries.

FEBRUARY MEETING

At least four societies were represented at the evening meeting in London on February 26, when Eric L. Simco spoke on the History of Perfumery. In addition to the BSHP & PSGB. members there were Mr K.B. Shipp president of the British Society of Perfumers and Mrs L.R. Bonser Sutton member of council Society of Cosmetic Scientists together with other members of both Societies.

An exhibition arranged by Miss P. North librarian PSGB showing herbals and other items from the Pharmaceutical Society's collection was much admired by the visitors.

BRITISH PHARMACEUTICAL CONFERENCE

Another reminder that Brighton is a popular holiday resort and hotel accommodation in September will be scarce. Those who wish to attend the Conference should book now.

The History of Pharmacy Session on Wednesday September 16 begins at 2.15pm and will be held at the University of Sussex.

Speakers are Mrs Mary Briggs on "The History of Medicinal Plants in Sussex" and Dr T.D. Whittet on "Apothecaries and the Development of Sea bathing".

BOOKS

At first glance "The Beta-lactam Antibiotics: Penicillins and Cephalosporins in Perspective" by Professor Sydney Selwyn might not suggest any particular relevance to medical and pharmaceutical history. It is a comprehensive survey of the subject in which the author has "indulged fully" in his passion for medical history. Professor Selwyn, a member of the Society deals not only with the contributions of Florey, Chain, Abraham and Fleming but also with earlier workers during the 1870-1876 period — Sanderson, Lister, Roberts, Tyndall and Thomas Henry Huxley. Publishers are Hodder & Stoughton, (£8.95).

The Gideon De Laune lecture for 1977 given by Dr T.D. Whittet dealing with "Clerks Bedels and Chemical Operators of the Society of Apothecaries" has been published by E.R. Squibb and Sons Ltd. (£2 plus 30p postage).

Conference break: Mr G. Gunthorpe and Mrs P. Stevens, Hampshire County Library.

The History of Perfumery

ERIC L. SIMCO*

The story of perfumery is the history of our civilisation. The origin of perfumery, like that of all ancient arts, is shrouded in obscurity.

In early times it was used in the form of unguents, and vases used for the storage of these are to be seen in the British Museum. They are thought to date back to the first Egyptian dynasty — that of Thinite, King of Menes, between 3500 and 5000 BC. By the time recorded history began, perfume was a widely accepted fact, but not in the manner in which we accept it today.

When we look back on the history of perfumery we are inclined to overlook the influence of the Far East, and in particular, China. Around 1000 BC we find reference to the use of flowers, aromatic plants and spices in peasant celebrations. Alchemy is said to have originated in China and in later years in the Islam empire in Africa and Europe the knowledge of the alchemists was to become the basis for the Mediterranean perfume industry.

The use of musk in China was quite common in those early years. It has a heavy, earthy, sweet and repugnantly strong odour and the effect obtained by minute traces has made it an important item in perfumery. Because of its close geographical proximity to India, travellers from China played no small part in the introduction and wider use of perfume. However, incense was used in India long before it was adopted in China.

It was through India that most of the trade between China and the Romans and Greeks took place, and during the 1st century AD it was, indeed, very considerable. The Romans satisfied their tastes for many luxuries. Fragrant wood and perfumes were brought to Rome in very large quantities, including, cassia, costus root, spikenard, cardamon, cloves, aloeswood and sandalwood. A great deal has been handed down to us detailing the very wide use of perfumes and cosmetics by the Egyptians.

To quote Eugene Rimmel in his "Book of Perfumes" — "We may say that perfumery was studied and cherished by all the various nations which held in turn the sceptre of civilisation. It was transmitted by the Egyptians, the Greeks, the Romans, the Arabs, and at last to the European nations". But we are also aware that many lesser nations have subscribed to the use of perfume in some form or other throughout the ages.

After the fall of the Roman Empire, Byzantium became the centre of the eastern part and was renamed Constantinople in the early part of the 4th century. Constantinople became a very important trading centre. Not only the gateway to the East, but the meeting place of the trade routes between Asia and Europe.

As the Byzantium empire grew, so, in the centuries which followed, perfumery became part of almost everything connected with everyday life.

In the years to follow, the enterprise of the Persians spread to Venice and Genoa. A more important milestone was the establishment of Islam and the eventual spread of its power to Spain in the 8th Century. At that time whole districts of Persia were given over to flower cultivation and the production of perfume. It is to the Arabs that we owe many advances made in the method of treatment of flowers and perfume raw materials.

A process of distillation was in use at the beginning of the 10th Century and that the process of 'enfleurage' was also carried out.

It is to the Crusaders of the 12th Century that we owe the wider introduction of perfumes to Europe. Manufacturing perfumers were established in France by the end of that century.

Lavender water was one of the perfumes first produced in Europe and it is known to have been produced in Germany and France around the late 14th Century. At about the same time "Hungary water" appeared. This was said to be based on rosemary.

We have to jump a little to the 16th Century when Italy was famed for its production of perfumes.

The fashion for its use was brought to England during the reign of Elizabeth I who was lavish in its use, and about that time we find records of its wider use in France, particularly associated with Empress Josephine and her Court.

We should here note the introduction of what was to be known as Eau de Cologne which is still a popular fragrance complex.

Several versions of the origin of Eau de Cologne have been recorded. One is associated with an Italian living in Cologne — Paul Feminis — who, in the early 18th Century, introduced a toilet water based on citrus oils, bergamot, lemon, neroli and lavender. This remained popular for many years until a descendant is said to have introduced rosemary into the formula and it was first marketed in Paris in 1806 under the name Eau de Cologne.

*Abstract from a paper given at a joint meeting of the Society and the Pharmaceutical Society on February 26.

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Many variations were made by well known perfumers and it was probably the foundation of the Guerlain business. Pierre Guerlain had produced a variation which first became popular with the Court of Napoleon III and very soon as "Eau de Cologne Imperiale" became famous throughout Europe.

In the 18th Century Nicholas Leblanc — invented a process for manufacturing soda cheaply from brine, enabling the soap industry to leap ahead.

For many years the enormous amount of perfume consumed by that industry has been a fact of considerable commercial importance.

The use of fragrance in its many forms was the privilege of the upper classes. This was very much in evidence during the later part of the 19th Century when the use of toilet waters was so popular. Perfume was used with a certain amount of discretion and it was respectable to smell only of such things as Rosemary or Lavender. Unobtrusiveness was considered to be the ideal.

Even at that time many world famous names in perfumery were already established. The famous House of Houbigant was established in 1775; Atkinson, established in 1799, moved to premises in Old Bond Street in 1832. Yardley was founded in 1801 and Guerlain in 1828.

The later part of the 19th Century was an important era in the research into aromatic chemicals, the results of which enabled many outstanding perfumers to create some of the world's most famous perfumes.

The discovery of such synthetic aromatics as Coumarin, incidentally by an Englishman — William Perkin — eugenol and methyl ionone, leading to the creation of Le Parum Idéal in 1896. In 1912 Quelques Fleurs was to start a fashion for lighter, floral perfumes; also to the House of Guerlain we owe such famous creations as L'Heure Bleu, Vol de Nuit and Mitsouko.

It is interesting to note that in 1880 Yardley were exporting 22 varieties of soaps to North America.

In 1875 Tiemann first discovered vanillin. He also discovered the odoriferous principle of violet, a ketone named irone which he isolated from orris root. Further work produced ionone.

A few years later Albert Baur was to discover musk ambrette and musk ketone. Around this era and the few years that follow, the discovery and production of synthetic aromatics moved forward rapidly. Heliotropine, terpineol, indol, geraniol, phenyl ethyl alcohol and citronellol to name but a few. These have been the basis on which the fragrance industry rapidly expanded.

Coty's famous names — Chypre, L'Origan and Emeraude — were all produced during the early part of this century.

After the first World War, Ernest Baux created the world famous Chanel No.5. This was probably one of the first perfumes using the newly discovered aliphatic aldehydes in a manner not at that time considered by other perfumers.

Chanel No.5 was the inspiration for a long series of famous perfumes which used the aldehydic complex, albeit with variations in the emphasis. Coty's L'Aimant and Arpege are but two outstanding examples of this.

Hydroxycitronellal in 1905 gave perfumers the ability to create fine reproductions of lilac, muguet, hyacinth, and probably plays a part in many of the more successful creations.

The Grasse manufacturers, have, in many cases, extended their activities to promoting the production of natural raw materials in such countries as Morocco, Tunis and Egypt, where we now find extensive production of Neroli, Rose and Jasmin etc.

To mention a few of the companies established in Grasse in its earlier days we must consider Antoine Chiris who commenced operations in 1768, Lautier in 1795, Roure Bertrand Fils in 1820 and Bertrand Freres in 1857.

This association of experience in producing matural materials, together with research and development in synthetic aromatics, has given great opportunities to the French perfumers.

Samuel Yorke

The old county histories can yield some interesting side lights on the history of pharmacy as witness John Nichols' *History and Antiquities of Leicestershire.* He frequently made a note of the monumental inscriptions to be found in the church or churchyard and under the section on Kegworth (p.854) a large village some six miles to the north of Loughborough he noted the following, "Near this place was interred the body of Mrs Sarah Yorke, wife of Samuel Yorke, gent., and third daughter of the late Rev^{d}. Mr. Thos. Twistleton and Anne his wife... died 7 August 1754 (N.S.) aged 48 and 2 days."

To which he added the note, "Samuel Yorke was an apothecary at Kegworth, brother to Sir William Yorke, Bt., one of the justices of the Common Pleas in Ireland; and chancellor of the Exchequer 1761. He died 30 September 1776 at the age of 76; and his relict Dame Charity Yorke, 8 May 1779 aged 72, and by particular permission, through the friendship of Dr. Saltar, the master, were both buried in the Charterhouse, London, where Sir William has been educated."

It would seem that this is a good starting point for an interesting piece of research. Just who was Samuel Yorke?

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Winchester in the 18th Century

The Role of the County Hospital

by CATHERINE DOBSON*

In the 18th Century Winchester was a small market town with no established industries; the once famous city had, as early as Elizabethan times, decayed to great ruin and poverty. Apart from its splendid cathedral and some fine houses, its principal distinction was its location; the convergence of routes from the west of England and the port of Southampton with roads to London.

From the 10th Century onwards, Winchester's rich inhabitants built refuges on the pattern of the Saxon and religious houses, which ministered to a variety of needs. By the 12th Century there were five such hospitals. One of these was founded by Bishop de Blois at Sparkford. Its chapel was dedicated to the Holy Cross, and it was to be a home for "13 poor men, feeble and so reduced in strength that they can scarcely, or not at all, support themselves without other aid." In addition, the endowment provided for a daily meal for 100 poor men. This Hospital of St. Cross and Almshouse of Noble Charity is said to be the oldest charitable institution in Great Britain still doing its work.

But there was no charitable treatment for illness as such. Even until the beginning of the 18th Century, only some 45 Fellows and Licentiates of the College of Physicians practiced outside London, and they alone of all practitioners recognised any central authority. Their colleagues with degrees from Oxford and Cambridge were few; only 172 men had graduated at Oxford during the 17th Century, so there was little hope of direct medical attention for the provincial population. Recourse when sick was to anyone who could hold out prospects of a cure.

This resulted in exploitation of the poor and ignorant, who, some writers noted, were drained of what little money they had by charlatans.

By 1714, a Quaker, John Bellers in "An essay towards the improvement of physick in 12 proposals, by which the lives of many thousands of the rich, as well as the poor, may be saved annnually", was advocating a state-supported service. Bellers pointed to the advantages to be gained from understanding medicine, since "any one of that frightful army of diseases might attack all parties, without respect of persons." His proposals, which he dedicated to Parliament, suggested that hospitals be built in and around London and that, if possible, there should be a special hospital for every main disease. Within less than two years of the issue of Bellers' remarkable pamphlet a group of philanthropic men set up the Westminster Charitable Society. Out of their efforts came the founding of the Westminster Hospital in 1719.

The establishment of the Westminster, and of Guys and St. Georges which followed shortly afterwards, and the sentiments of John Bellers, has a seminal influence on the figure to whom we now turn, Alfred Clarke.

Clarke was born in 1696 and was educated at St Pauls School and Corpus Christie College, Cambridge. He was the nephew of a Bishop of Winchester, Charles Trimnell; and it was through this uncle that Clarke was ordained and made a prebendary of the Cathedral.

When Charles Trimnell died, his successor as Bishop of Winchester, one of the ultimate political rewards for a churchman, was Richard Willis. He was to become, in turn, President of the Westminster and St. George's Hospitals, and was to be Clarke's Bishop for the next 7 years. Clarke was by this time acting Vice-Dean to the Chapter at Winchester and was later to become a prebendary of Westminster. His travels and the interests of his Bishop would have created for Clarke an awareness of, and given him insight into, the administration of these early London Hospitals. Furthermore Parliament by an Act passed in 1722, enjoined Parishes to provide workhouses. Clarke on May 22 1736, launched a scheme for the erection of a hospital in Winchester. He suggested that individuals should subscribe by quarterly payments in order to procure, furnish and defray the necessary expenses of a hospital at Winchester, for benefit of the sick poor. His proposals appeared and the first subscription papers were distributed in May 1736; by August 1736, all but £600 had been contributed; by October the first patient was admitted to this, the first voluntary hospital outside London. For in August 1736, the subscribers met at St. John's House in Winchester Broadway, under Clarke's chairmanship and decided that they constituted a Court of Governors for the projected hospital. Among the 52 people who signed the Minute book were the Bishop of Winchester, the Warden of Winchester College, the City Recorder and Sir William Heathcote, the Tory Member of Parliament for Southampton, whose association with the hospital was to prove historic. The Court of Governors elected a committee which agreed to lease a house in Colebrook Street, said by a commentator to be the most "eligible" one available; to furnish the house and to open it for the reception of patients on St. Luke's Day. They appointed a treasurer, two physicians and two surgeons. Losing no time, the committee met two days later and decided that a further 1,000 copies of Clarke's "Proposals" and his "Further considerations" should be printed and sent with a list of all those who had already subscribed."

Committees met again in September and October; they appointed a Matron, Abigail Aston from Westminster, and a nurse with Westminster experience to assist her. An apothecary named Pratt was hired at £20 per annum, who was required also to act as hospital secretary. The treasurer was told to clean the yard, put the infirmary in good repair, and to stock it with medicines.

On October 12, six days before St. Luke's Day, the Court of Governors met again and reported the names of new subscribers, who included the Dukes of Bolton and of Chandos and a Southampton Merchant named Richard Taunton. Clarke reported the appointments of the professional staff and stated that the hospital would open as soon as it was stored with the necessary medicines — the store and dispensary of bottles, jars, scales and herbs were the responsibility and stock in trade of the apothecary. On St. Luke's Day, October 18th 1736, Clarke preached a sermon in Winchester Cathedral, starting with Luke's words: "He sent them to preach the Kingdom of God and to heal the sick." He gave credit to his supporters, who had come from all ranks and all denominations, to act together for the common good.

*Abstracts from papers given at The Spring Conference, Winchester, March 27-29.

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". . . First patients"

by MARGARET GUNN*

A major method of treatment was to accept the sick as in-patients in the hospital and admission procedures were clearly laid down. Except for sudden emergencies, patients were only admitted on Wednesday mornings. They had to produce a letter of recommendation from a subscriber. A subscriber could recommend one in-patient if he subscribed £1 a year but had to subscribe £5 or more to have more than one in-patient at one time. Subscribers were sent reminders when their subscriptions were due for renewal and were expected only to recommend 'proper objects of charity'. There was some correspondence with a local vicar insisting that his recommended patient was not sufficiently poor.

The patients were also expected to be "curable" — whatever that meant — and they could not have "smallpox, itch or other infectious disease" or "be dying". To these restrictions were later added

"No children under 7 years except for operations"
"No women big with child"
"No one disordered in their senses" and
"No consumptives".

It is ironical that Dean Clarke himself, thought to be consumptive would probably not have been admitted to his own hospital, and indeed it was clearly necessary to be fairly fit for anyone to be admitted.

In-patients were also expected to sign or make their mark to indicate that they would obey the rules of the house and if they refused or left without the consent of the Physician they would pay matron at a rate of five shillings per week for the provisions and medicine they had received.

The orders for in-patients included the necessity of obtaining a signed certificate of discharge and the rule that they could not go home at night.

They were expected to attend to their prayers — although no denomination is specified — and they were not allowed to "swear, curse or use abusive language". It was stipulated that after one warning, they could be discharged on the next offence with no chance of re-admission.

Other rules stipulated that no men were allowed on women's wards or vice versa without permission and that there should be no cards, dice, other games or *smoking*.

In fact patients were expected to assist the nursing staff with washing and ironing of linen, cleaning the wards or any other duties required by the matron, and if discharged for any irregularity they should never be readmitted.

Other forms of treatment, as today, were provided to out-patients. Initially such patients were given free advice and medicine on Wednesday and Saturday mornings but this was obviously popular and Monday was soon added.

They also were bound by rules and were expected to attend exactly when the Apothecary had appointed. If they failed to attend twice they were discharged.

No more medicine was given until any remaining medicine or the empty vials or gallipots were returned and one of the major crimes which could be committed by an out-patient appears to have been to walk on the gravel in the church yard.

However, out-patients could be financially assisted. If they lived more than ten miles from Winchester, they would be expected to stay in the town to attend the hospital. In that case, their own parish might be expected to give them two shillings per week but if they received less, the hospital would give them one shilling per week to help defray the expenses of living away from home.

An important aspect of the hospital from the beginning was the records maintained of the patients and their medical problems.

During the first twelve weeks of the hospital's existence there were 28 patients discharged and it is shown that 21 were cured, one was incurable, two were discharged for non-attendance and one for not taking his medicine and finally two died. It is even stated that these died of the palsey and of ulcerated lungs due to excessive drinking.

It has been shown that sponsors were obtained from the beginning and many loans were obtained to keep the hospital running. From the first years accounts it is clear that many items are omitted.

These accounts show receipts of £1015 made up mostly of subscriptions and donations. The payments included £234 on housekeeping and coal and £74 on drugs and even shows a balance or "profit" of £6. However no mention is made of various items including a debt of £205 to the builder and £236 to the joiner.

It is recorded that the rent of the building was £14 a year and a smaller house was also rented at 10 guineas a year. The building was insured for £500 and later the contents were valued at an additional £200. George II gave a bounty of £200 and various other loans and gifts were received.

Richard Taunton left a large sum — £4915 — to the hospital. The Governors immediately spent 500 guineas on the Parchment Street site and then began a familiar saga of escalating building costs, of poor workmanship and recurring crises. The original estimate of £2000 rose to a final cost of over £4700.

Source-material in the Winchester City Archives 1550—1981

by A.P. WHITTAKER*†

Information on the history of medicine and public health is either incidental or specific, being found scattered haphazard through official administrative records from the sixteenth to nineteenth centuries, but contained in specialised documents from c.1850 onwards.

In the first category are the city Ordinance Books, nineteen volumes of the City Council Minutes, 1552-1835, occasionally mentioning e.g. such matters as attempts to control plague and civic sanitation; the annual financial records known as Chamberlains' Rolls, and a further series detailing civic income and expenditure, the Coffer Accounts. Many similar references are to be found in the Order Books and records of Proceedings of the City Court of Quarter Sessions, which sat from medieval times until 1971. The Churchwardens' and Overseers'

† Mr Whittaker is The Winchester archivist.

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books, which survive in quantity for the city parishes, are a fruitful source of information on measures taken for the control and relief of sickness; the burial registers yield statistics, and occasional details may be gathered from the mass of local documents carefully preserved by the late alderman W.H. Jacob.

An Act of Parliament, 1770, established the Winchester Pavement Commissioners, empowered to pave, repair, cleanse, light, and watch the city streets and to raise rates for doing so; their series of ten minute books prove the wide extent of their activities, much concerned with public health, until they were superseded by the City Council in 1866. In 1772 the local and county newspaper, *The Hampshire Chronicle*, began publication, and its files, continuous from that time to the present day, are available on microfilm at the Public Library and are an invaluable mine of information.

With the coming of local government reform in 1835, there began a more sensitive civic awareness of responsibility for public health, and the City Council came to establish committees, of varying scope and continuity, in this field, e.g. the Sanitary Committee (1848), the Sewage Farm Committee and the General Improvement Committee. These and the City Council itself have left voluminous minute books, which also reflect the long agitation for an adequate sewerage system for the city, finally achieved in 1878. Annual reports of the Medical Officer of Health begin in 1875 and are continuous from 1898 to 1973. the Winchester Provident Dispensary, a philanthropic enterprise conducted from 1875 to 1968, has left records dating from 1922 to 1968.

There are also two unique records: first, a continuous series of prescription books, 1846 — 1964, deposited on extended loan by a leading Winchester pharmacy; second, a tape-recording of the reminiscences of the city'a Chief Environmental Health Officer, whose Report to the City Council in 1950 led to the clearance of a large amount of property in the centre of Winchester.

Physick in Bolton in 1779

by WILLIAM J. ROBINSON

The 1979 Bolton Festival commemorated the bicentenary of the invention in 1779 of the Spinning Mule by Samuel Crompton of Hall i'th' Wood, Bolton. This single and historically important event was to revolutionize the textile industry and bring great prosperity to Bolton and Lancashire.

Knowing of my interest in the history of pharmacy I was asked to participate in the Bolton Festival Display Scheme by preparing a window display in my town centre pharmacy portraying the pattern of changes in pharmacy in Bolton from 1779 to the present.

There is very little existing information about Chemists and Druggists in Bolton in 1779.

Thomas Pickering and Edward Bolling were listed as Surgeon-Apothecaries in 1779, 1780 and 1783 whilst John Crompton and William Morris were listed in 1783.

Actual pharmaceutical items from 1779 were even harder to find. Eventually I decided to include in the display three mortars from my own collection. The first is a very fine bell metal mortar dated 1681 and inscribed "amor vincit omnia". The second is a very heavy iron mortar with a long pestle and is dated circa 1800. The third mortar, also bell metal, was small and somewhat battered by age and supposedly dated around 1790.

I discovered from Baines Directory for 1824 that there were eleven Chemists and Druggists in Bolton at that time.

They were: Chalinor John, 30 Moor Lane
Cooper, C.R., 9 Deansgate
Hill William, Oxford Street
Knott Hannah, 119 Deansgate
Morris & Son, 181 Deansgate
Nelson William, 190 Deansgate
Neville William, 190 Deansgate
Scowcroft James, 9 Deansgate
Watson Abraham, 165 Deansgate
Watson Henry, 188A Deansgate
Watson John, Manor Street, Little Bolton

(The town of Bolton at that time was divided into Greater and Little Bolton. The Little Bolton Town Hall having been recently restored is now a local history museum).

In 1828 Richard Reynolds came to Bolton and commenced business on his own account in premises at the corner of Oxford Street and Market Place (this later became Town Hall Square and is now the Precinct). Reynolds, the son of a solicitor, was a native of Pontefract, Yorkshire, and was apprenticed to a Chemist and Druggist in Leeds. After completing his term of service and attaining the necessary qualifications he was engaged for some time as an assistant in London. In 1866 he retired from the business which he transferred to his eldest son, Walter J. Reynolds, who carried it on until 1890.

In 1848 Robert Knott qualified as a Chemist and Druggist and later opened a pharmacy at 1 Blackburn Road, this business remaining in the family until 1943. At a later date he opened a pharmacy branch at Astley Bridge. In 1892 Robert was succeeded by his son Percy who became an Alderman and Mayor of Bolton. Alderman Percy Knott, JP, MPS, contributed much to the town of Bolton as he did to the profession of pharmacy. He was, at various times, secretary and president of the Bolton branch of the Pharmaceutical Society. He was elected to the Town Council in 1911 and was continuously a member until his death, having been Mayor in 1925/26 and elected an Alderman in 1928. He served as chairman of the Bolton Insurance Committee and also represented the town on the Lancashire Prescription Bureau.

Kellys Directory for Chemists for 1878 in Bolton lists the following.

Analytical Chemists
Henry Hough Watson, 227 The Folds, Little Bolton.

Manufacturing Chemists
Canby and Company, Folds Road.
Charles Fell, Tonge Bridge Chemical Works.
James Horrocks, Daubhill Chemical Works.

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Chemists and Druggists
Nathan Berry, Walkden.
William Blain, 25 Market Street.
(This business was established in 1851 by William Blain. Pharmaceutical Chemist, who moved his pharmacy to 25 Market Street in 1854. The shop front is still more or less the original and two carboys which stand, one in either window, as they were in 1854. In Bridge Street, Bolton, was a spring of water which was not considered suitable for domestic use, but which was always clean and sparkling, Mr Blain used this water, tinting it with chemical colours to fill his carboys. They have never been refilled. These premises still function as a pharmacy today and make it Bolton's oldest pharmacy.)
Henry Broughton, 113 Vernon Street.
Adam William Cartwright, 62 Blackburn Road, Astley Bridge.
John Cunliffe, 112 Blackburn Road.
Nicholas Cunliffe, 41 Crook Street.
Geo. Dutton & Sons, 15 Town Hall Square.
(He produced the long time famous "Duttons Cough Mixture").
Joseph P. Fish, 178 Folds Road.
James W. Forbes, 51 Great Moor Street.
Joseph Hamer, 136 Bradshawgate.
James Hart, 130 Newport Street.
(This business, which was founded on White Lion Brow, Bolton, in 1848, was transferred to Newport Street in 1861. The owners were:
1848-1894 James Hart, Pharmaceutical Chemist, Dental Surgeon
1894-1914 Frank Hart, Pharmaceutical Chemist.
1914-1948 James S. Hart, M.P.S. Dentist.
1948-1973 A.B. Baldwin, M.P.S.
The pharmacy was closed in 1973 when Mr Baldwin took over the business of William Blain Ltd., in Market Street).
William Hart, 99 Higher Bridge Street, Little Bolton.
Richard Heap, 98 Deansgate.
Alfred Higginson, 150 Deansgate.
William Henry Holden, 21 Newport Street.
Alfred Holt, 230 Halliwell Road.
Richard Jackson, 83 Bradshawgate.
Robert Knott, 1 Blackburn Road, Little Bolton.
William Leather, 171 Derby Street.
Charles Mason, 117 Derby Street.
Henry Burton Pare, 9 Church Bank, 46 Newport Street, 86 Bridgeman Street.
Alexander T. Patterson, 201 Bridgeman Street.
Thomas Robinson Pownall, 45 St. Georges Road.
(Originator of the locally famous "Pownall's Syrup of Horehound.')
John Priestly, 12 Deansgate.
Walter John Reynolds, 8 Town Hall Square.
James Richardson, 29 Knowsley Street.
William Rostron, 29 Blackburn Road.
George Shellcross, 120 Folds Road, Little Bolton.
Walter B. Stables, 44 Newport Street.
John Taylor, 60 Deansgate.
Joseph Taylor, Folds Road, 20 Manor Street.
William Walker, 130 Higher Bridge Street, Little Bolton.
Thomas Wood, 7 Newport Street.
Francis Worfolk, 57 Bridge Street, Little Bolton.
James Young, 84 Folds Road.

Cork Cutter
Miles James Sweeney, 5 Crown Street.

Wholesale Druggists
William Henry Legat, 19 Cross Axes, Deansgate.
Thomas Moscrop & Co. Ltd., 1 & 3 Folds Road.
James Young, 84 Folds Road.

Herbalist
Edward Holland, 191 Derby Street.

Medical Botanists
George Elston, 39 Great Moor Street.
Joseph Healey, 86 Derby Street.
James Norris, 245 Derby Street.
Joseph Pink, 14 Manor Street.
George F. Reynolds, 14 Manor Street, Little Bolton.

Medical Galvanist
George Elston, 39 Great Moor Street.

Mineral Water and Soda Water and Lemonade Manufacturers
John Bogg and Co., Manchester Road.
Alexander Martin, Excelsior Mineral Water Works, Brownlow Fold.

Patent Medicine Vendors
H. Bradbury, 18 Deansgate.
William Kitching, 172 Crook Street.
Alexander P. Patterson, 144 Derby Street.
James Norris, 245 Derby Street.

Bolton Infirmary and Dispensers
("Vendor of Patent Medicines and/or Dispensary").

A prescription book originating from Knott's Pharmacy at Astley Bridge dated 1883 includes a number of interesting items. On April 10 Mrs John Robinson paid sixpence for a 2oz. pot of zinc ointment. Mr J. Lawson's coachman was charged one shilling for six horse balls containing Barbados Tar, Garlic (or Asafetida), Nitre, Black Antimony and Rosin. If he ordered 16 there was a pro rata reduction to 1/9. A later entry gives details of a poultry powder containing:

P. Foenugreek	8oz
P. Gentian	8oz
Pulv. Saccn. Alb.	6oz
Pulv. Gran. Paradis.	4oz
Pulv. Cummin	2oz
Pulv. Anisi	1oz
Ferr Sulph Pure	1oz
Pip Cayenne	1oz

"Mix the powders together in a mortar and pass through a mod. fine sieve."

Acknowledgements
I would like to thank the following for their help in providing research material:
Miss D. Jones, assistant librarian, the Pharmaceutical Society
Dr J. Burnby, British Society for the History of Pharmacy.
Dr T.D. Whittet, Society of Apothecaries.
The staff of the local history department, Museum of Bolton.

I am also indebted to the following for their kind items used in the window display:
Mr C. Driver Museum of Bolton.
Mr G. Tyrer, M.P.S., and Allen & Hanburys Limited
Fisons Limited, Pharmaceutical Division.
Eli Lilly & Company Limited.

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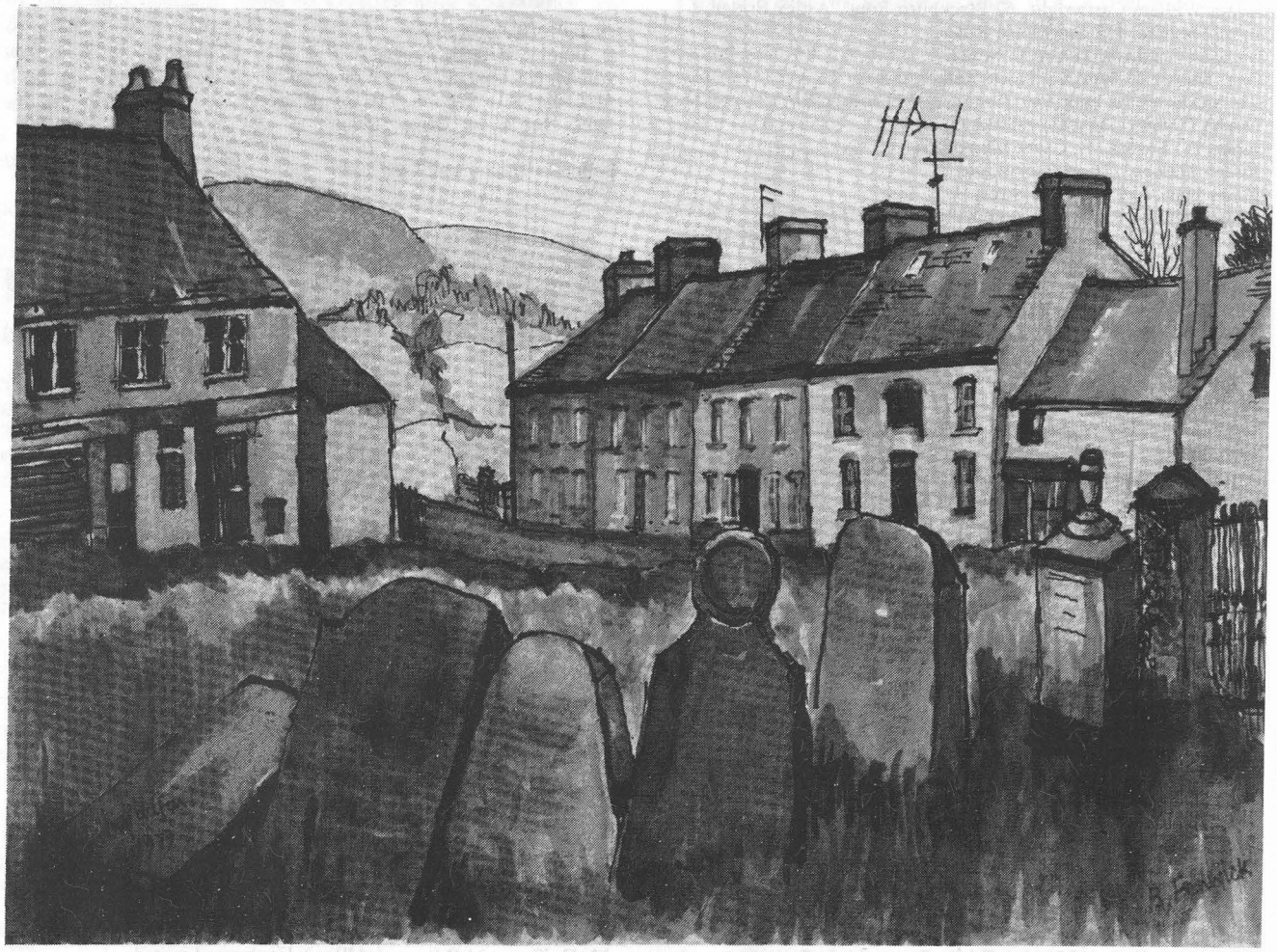

'Myddfai as seen from the churchyard

For a modest contribution to Society's funds (minimum 50p) members can obtain an enlarged print (29 x 21 cm approx) of the above — Applications and contributions to the Secretary BSHP 36 York Place, Edinburgh.

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A Modern Pilgrimage

by J.G.L. BURNBY

The road wound eastwards from the attractive little town of Llandovery, the start of many a long cattle drive to the markets of Barnet and Smithfield. It was growing dusk and time was pressing when suddenly on the right hand side apeared a signpost 'Myddfai' — a magic name, but too much time had been spent in the high upland country above Tregaron watching the kites and dreaming of Twm Sion Cati the 16th Century folk hero of West Wales, to allow any deviation.

A year past and then two, but eventually a trip to the Roman gold mines of Dolau-Cothi north west of Llandovery presented itself and a determination to visit Myddfai grew. The weather was not propitious, the summer had been unusually rainy even for 'wet Wales' and this day was no exception. The road was narrow with high hedges, the surface marred by large pot-holes, truly this was isolation. Worse was to follow. A right turn was indicated and there at the junction we were faced by a notice in Welsh and English that the road to Myddfai was closed owing to the simple fact that it was washed out. An alternative as given but with the warning that the going was rough.

Scarcely daunted, we took it. Almost inconceivably the road narrowed, the holes became larger, the macadamised surface degenerated to two tracks, we passed through a damp farmyard, we skirted along a valley on a shelf, to arrive with mud to the hub-caps in Myddfai. It proved to be a charming village with a fine shop and an even finer place of refreshment, The Plough.

The soft rain continued persistently but nevertheless we were firmly escorted by a local inhabitant to see every vantage point. The church was unlocked and we were admonished not to miss the tombstone in the porch.

Here
Lieth the body of Mr.
David Jones of Mothvey[1]
Surgeon, who was an
honest, charitable and skilful
man. He died Septemb[r] ye 14[th]
Anno Dom 1719
Aged 61

John Jones, surgeon
Eldest son of the said
David Jones, departed
this life the 25[th] of Nov[r]
1739 in the 44th. year of his
age and also lyes interred
hereunder.

The Jones, father and son, claimed to be the last of the lineal descendants of Einion one of the physicians of Myddfai.

On few occasions in its history has Wales been able to achieve any degree of unity. One of these was in the reign of Rhodi Mawr (Roderick the Great) in the time of Alfred, another was with Howel Dda (Howel the Good) a contemporary of Athelstan, a third occurred was under Llywelyn who achieved great power in the time of England's King John. One of his lieutenants was Rhys Gryg, captor of the castle of Llandovery, in whose retinue was a surgeon/physician called Rhiwallon. By was of reward for his services Rhiwallon was given the lordship of Myddfai; there he and his three sons Cadwgan, Gruffydd and Einion settled and came to be known as the Meddygon Myddfai or the Physicians of Myddfai. Their fame became so great that their skills were thought to be of supernatural origin. So that this invaluable knowledge should not be lost their method of treatment was written down in the *Meddygon Myddveu* near the end of the 14th Century[2]. The *Meddygon* is in two parts, the second half being claimed to have been compiled by John Jones but there is some doubt as to the authenticity of this section[3].

Dr. Earles has shown that much of the *Meddygon's* material harks back to Dioscorides and the doctrines of Hippocrates, and was in fact derived from the early classical tradition. He puts forward the suggestion that their fame was based on clever diagnosis and prognosis together with sound advocacy for a sensible diet, exercise and hygiene, and thirdly a high degree of surgical ability which had been obtained during the all too frequent wars and revolts of the period[4]. Much play has been made of the separation of physician from surgeon in past centuries but in fact these arbitary divisions were for much of the time, and in most places, totally impracticable — and undesirable. The universities of Bologna, Padua and Montepellier in the Middle Ages trained some physicians as surgeons and the university of Paris for a period even had faculty members who were physician/surgeons[5]. The importance of the two branches of medicine to each other was certainly recognised by mediaeval writers, ''But thon schalt knowe wel this, that he is no good phisician that can bo thing in cirurgie. And also the contrarie thereof; and a man mai be no good cyrurgian, but if he knowe phisik''[6]. No doubt Rhiwallon, Cadwgan and Einion would have subscribed to this view for they were the fore-runners of the surgeon and apothecary of the 18th Century and the general practitioner of the 19th.

References

1. 'Mothvey' is a simulated English version of the Welsh pronunciation of Myddfai.
2. J. Pughe (Trans.) Williams ab Ithel (Ed.) *The Physicians of Myddfai*, Llandovery 1861.
3. It has been stated that the compilation was carried out in 1743 but John Jones had been dead four years.
4. M.P. Earles, 'Materia medica and therapy in the Meddygon Myddveu', *Pharm. Journ.* 16 Jan. 1971, pp.46-7.
5. H.E. Ussery, *Chaucer's Physician*, Tulane University, New Orelans, 1971, p.11.
6. R.von Fleishhacker (ed.), *Lankfrank's 'Science of Cirurgie'*, 1894, p.298 as quoted by Ussery, op.cit.p.59.
English text of around 1400 A.D.

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1839 Advertisements

by C.A. LIVESLEY

The Derbyshire Record Society has recently reprinted a small volume which contains much of interest to the pharmaceutical historian. This is the Nottingham and Derby Railway Companion of 1839. It is a slim volume of 122 pages, the last 72 being the ones to interest the historian, these are prefaced "The Railway Companion Advertiser".

The advertisements which it contains can be divided into two, those concerning individual chemists and those concerning patent medicines.

Individual Chemists

There are four advertisements for chemists:—

i) I.H. Wright[1], Chemist and Wholesale Druggist of the Corn Market, Derby. This occupies less than ⅓ of a page.

ii) Messrs Brothers and Williams[2] of Long Row, Nottingham and occupies a full page. A William Williams of Long Row is noted as a Member of the Pharmaceutical Society in 1842.[3]. It is interesting to note that in the previous year, 1841 are listed for Nottingham 3 members[4] and no associates of the Society and in the following year, 1842, there are 13 members[3] and 18 associates[5] of the Society. Included in these associates are Joseph Ellicock and William H. Whinfield, both of whom resided with Mr. Williams.

Does the increase in both Members and Associates between 1841 and 1842 follow a National trend at this time, or was it that Nottingham Chemists were particularly keen on the Pharmaceutical Society?

Mentioned in Messrs Williams and Brothers advertisement is the fact that they were "Agents by Appointment for the sale of Schweppe's Aerated Soda Water and Lemonade" which is described as being received fresh from the Manufacturers every week.

They also give a list of Patent Medicines for which they were Agents:—

American Soothing Syrup.
Butler's Cayenne Lozenges.
Butler's Essence of Sarsaparilla.
Blair's Gout and Rheumatic Pills, this must have retained a popular following since it was castigated by the BMA in 1909[6]. It's popularity did not seem to be too badly affected since it is listed in a 1939 price list?
Cockle's Antibilious Pills, this too was attacked by the BMA, this time in 1912[8], still in existence in 1939[9]
Cheltenham Salts.
Ching's Worm Lozenges. These were originally made by John Ching of Launceston in Cornwall and brought him a certain measure of success. They were advertised in the Hampshire Chronicle in 1798[10] and were patented by John Ching in 1796. After John's death his widow, Rebecca, continued the production and a new patent was issued in 1808 for an improved Ching's Worm Lozenge. They were still apparently being used in 1860[11].
Dixon's Antibilious Pills.
Dalby's Carminative, a formula for this is given in Pharmaceutical Formulas, 1929[12].
Frampton's Pill of Health, these were still being sold in 1939[13].
Frank's Specific, a formula for this is given in Pharmaceutical Formulas, 1929[14].
Golden Ointment.
Hard's Farinaceous Food.
Henry's Calcinated Magnesia, this would appear to be the same article as Henry's Solution which orginated from Dr. James Henry who wrote to the *Edinburgh and Surgical Journal* in January 1834 concerning it[17]. It would appear to have been a popular and widespread remedy since it was listed in the Inventory of a Welsh Chemist in the 1840's[15]. It was still for sale in 1939[16].
Hudson's Syrup Sarsaparilla.
Hudson's Bleaching Liquid.
Hunt's Family Pills, these were still sold in 1939[18].
Lefay's Pommade.
Marshall's Cerate, still sold in 1939[10].
Moxon's Magnesian Aperiant.
Oxley's Essence of Ginger, still sold in 1939[20].
Roche's Embrocation. The original patent for this product was granted in 1803[21], it was still available in 1939[22].
Shepherd's Ipecacuanha Lozenges.
Dr. Joshua Webster's English Diet Drink.
Widow Welsh's (sic) Female Pills, still available in 1939[23].

iii) Graham and Co.[24]. Chemist and Druggists of Liversage St., and Carrington St., Derby and occupies half a page. They describe themselves as follows:—

Prescriptions Accurately Prepared, Dealers in all Kinds of Oils, Paints, Colours, Varnishes etc.
Horse and Cattle Medicines.
Vinegar, Mustard, spices, Pitch Tar, Resin &c &c &c.
With every article connected with the Drug Trade.
Tea, Coffee, Grocery and General Provision Dealers.
Snuffs, Tobacco and Cigars.

iv) S.Palethorpe, Chemist and Druggist of No4 Carrington St., Nottingham; who like Graham and Co. mentions Horse and Cattle Medicines, Paints, Oils, Colours, Varnishes in his copy.

Patent Medicines

i) Scott's Vegetable Pills.[26].

This advertisement would appear to be "quite modern" in that between "Scott's" and "Vegetable" is inserted "Genuine improved". They are described as being available from Scott's Vegetable Medicine Warehouse (sic), 10 South College Street, Edinburgh. Just to make sure that people did find the right place there is added, 'second door up stairs'. The Nottingham Agent was given as Mr. Wm. Field, Bookbinder of Granby Street.

Scott's Pills were still in existence in 1912[27] and in 1939, Butler and Crispe list two Bilious and Liver Pills[28] one being described as 'Dr. Scott's and the other "Scott's'. Possibly one was an imitation of the original.

ii) Bostock's Eye Ointment[20]

This is described as 'Bostock's Northern Botanic Eye Ointment' and originated from Mr. Bostock, Druggist of East Leake, Nottingham. It was still in existence in 1909[30].

A list of local agents is given:—
Allen, Guy, Nottingham.
Collinson, Mansfield.
Peet, Newark.
Batchelor, Southwell.
Roberts, Chesterfield.
and of one respectable medicine vendor in every market town throughout the United Kingdom.

iii) Holworthy's Ointment[31].

I can find no reference to this preparation.

The advertisement occupies a full page and a list of agents is given which would imkply its popularity at the time. The proprietor is J. Holworthy of Wimeswould, near

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Loughborough, Leicestershire. The list of agents is as follows:—

Towne, Melton.
Refern, Loughborough, Mr. Refern had an Associate of the Society in 1842, a John Bush[32]. Mr. Redfern himself does not appear in the list of Members.
Noble, Boston.
Allen, Sutton and Co. and Guy, Nottingham.
Darley, Burton-on-Trent.
Wayte, Ashby.
Thompson, Tamworth.
Langley, Mansfield.
Moore, Castle Donington.
Short, Hinckley
Short, Nuneaton.
Bushby, Grantham.
J.F. Winks, Leicester.
and of all the principal medicine vendors.

iv) Ashley Cooper's Botanical Purifying Pills[33].

This is a full page advertisement and they were sold from 63 Oxford St., in London 'and by their agents in the principal towns throughout the Kingdom'. The Nottingham agent was given as R.Allen, Mercury Office, 57 Long Row. Allen was a printer and stationer and must have thought that the *Railway Companion* would be a good medium to reach potential customers since he took five pages[34]. The fact that he also printed the Companion might also be relevant. I have not been able to trace any reference to Cooper's Pills.

v) Watt's Gout and Rheumatic Pills[35].

This is a full page advertisement and contains a further note for Watt's Family Antibilious Pills. No address is given for Watt's so it is not possible to know whether it is a local concern or a national one. The local agent was given as R. Allen, Long Row. I have no other reference to this Medicine.

References

1 Nottingham and Derby Railway Companion 1839 (N.& D.R.C.) Pub. by Derbyshire Record Society, 18 Mill Lane, Wingerworth. 1979. p.15.
2 ibid. p.17
3 Pharmaceutical Journal Vol.II p.351.
4 ibid. Vol. I p.376.
5 ibid. Vol. II p.300-301.
6 "Secret Remedies" BMA 1909 p.50.
7 Butler & Crispe, 80, 82 & 84 Clerkenwell Rd., London EC. Price List for 1939. p.31.
8 "More Secret Remedies" BMA 1912 p.98.
9 Butler & Crispe p.59.
10 Pharmaceutical Journal Vol.210 p.114.
11 ibid. Vol.209 p.614, see also Pharmaceutical Journal Vol.210 p.14 for correction to the original article and Pharmaceutical Journal Vol.210 p.51 for a letter from G.E. Trease concerning John Ching's Family tree.
12 Pharmaceutical Formulas Vol.I Pub. Chemist & Druggist 1929 p.379.
13 Butler & Crispe p.99.
14 Pharmaceutical Formulas p.323.
15 Pharmaceutical Historian Vol.9 No.I p.5
16 Butler & Crispe p.115.
17 Pharmaceutical Formulas p.338.
18 Butler & Crispe p.124.
19 ibid. p.163.
20 ibis. p.196.
21 Pharmaceutical Formulas p.134.
22 Butler & Crispe p.227
23 ibid. p.276. It is interesting to note the spelling; in 1839 "Welsh's" and in 1939 "Welch's".
24 N. &D.R.C. p.23.
25 ibid. p.25.
26 ibid. p.31.
27 "More Secret Remedies" p.98.
28 Butler & Crispe p.241.
29 N. & D.R.C. p.47.
30 "Secret Remedies" p.143.
31 N. & D.R.C. p.60.
32 Pharmaceutical Journal Vol.II p.294.
33 N. & D.R.C. p.66.
34 ibid. pages 61-65.
35 ibid. p.68

The Tradescant Trust

Steady Progress

During the winter months St. Marys-at-Lambeth, the proposed Museum of Garden History, was closed for the cleaning of the interior walls.

This marks the steady progress of The Tradescant Trust towards the restoration of the once-derelict building. Phase 1, that of the complete re-roofing of St. Mary's, was completed in 1979 at a cost of nearly £100,000. The Trust now faces the enormous task of putting the rest of the building in order and setting up the Museum.

As a gesture of intent, The Tradescant Trust is mounting its first exhibition (to be open daily 11am—6pm) from Wednesday, June 24 — Sunday, July 26. '...Adventure To Those Faire Plantations' has been designed by Barry Mazur (whose work includes the exhibitions at the V. & A. 'Change and Decay' and 'The Garden', and 'Sacred Circles' at the Hayward Gallery). It is in honour of Captain John Smith, explorer and adventurer and Governor of Virginia in 1607, and of the early Virginian settlers. Captain John Smith was the friend of John Tradescant to whom, at his death, he left half his library of books. At the end of July this exhibition has government backing — as an exhibition of educational interest — to go on tour to five chosen sites in the USA.

1981 is the 400th anniversary of the death of Captain John Smith. The Trust is arranging a service of commemoration in the Church of the Holy Sepulchre, Holborn Viaduct EC1 (where Smith is buried) at 11 am on Tuesday, June 23. At the Trust's invitation the present governor, the Hon. John N. Dalton, is coming over from Virginia to give the address at this service.

During the time of the exhibition, two events of great interest will take place. On Sunday June 28 and Sunday July 5 at 8pm. in St. Mary-at-Lambeth, there is to be a Celebration in Words and Music of the Life and Times of Captain John Smith. 'Turks and Tomahawks' willbe directed by Michael Howarth with the help of the Old Vic. Tickets are £1.50.

On Monday, June 22, by kind invitation of the Marchioness of Salisbury and in the presence of Her Majesty Queen Elizabeth the Queen Mother a Garden Party is to be held at the Old Palace, Hatfield House, in aid of The Tradescant Trust and in honour of the Governor of the Commonwealth of Virginia.

This will take place from 2.30—6pm. Tickets are £10 (£9 to Friends of The Tradescant Trust) Admission is by invitation only.

All particulars of the above events may be had (with sae please) from: The Tradescant Trust, 7 The Little Boltons, London SW10 9LJ. St. Mary-at-Lambeth is open on: Monday, Wednesday, Thursday and Friday at 11-3pm. Sunday 10.30-5pm.

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Memoirs of H.P. Hearder

by C.W. LAMBLE

My "Cousin Harry" was a chemist whose shop was in Westwell Street, Plymouth in Devon. I always thought of him as such although he had retired before I was born in 1914 and I only remember that he mentioned his technical knowledge to me once, with a little joke about "making water".

He was a son of Dr. J.N. Hearder, D.Sc., Ph.D., F.C.S., a scientist and lecturer who (among many significant inventions) had produced a galvanic machine which several London hospitals adopted, and who was consultant in medical galvanism to the South Devon Hospital from 1842.

Harry 'set up' in 1866. In Morris's Directory for 1870, his notice reads:— "H.P. Hearder, Analytical and Pharmaceutical Chemist, Medical Galvanist, Manufacturer and Proprietor of the Royal Western Yacht Club Sauce, Laxative Granules, Pick-me-up, Single Seidlitz Powders, Remedy for Sea-sickness, Minister's Lozenges, etc. (price list on application)."

My cousin retired in 1914, with a long lease and an agreement for his business which should have secured him a comfortable retirement. By 1918 things were not the same and he lived the rest of his life with his daughter Laura, certainly not in poverty, but by no means well-off. At his death in 1933 he left less than £3000 gross.

He was a very "full" man. There survives a record of his taking the chair at a meeting, in 1896, of the junior branch of Plymouth, Devonport, Stonehouse and Distict Chemist's Association, at which the business included a football team, a pharmacy club for the winter evenings and the organising of botany rambles. In 1898 he exhibited to the Association his invention of a mould, of syringe type, for making suppositories, pessaries and bougies — of which his account, with photographs, was published in the the *Pharmaceutical Journal* March 19, 1898.

In November 1904 he gave, in Plymouth, a public lecture on the properties of the newly discovered Radium, with a demonstration using ampoules of the bromide ("worth £30", according to the *Western Daily Mercury*). In this he was assisted by his youngest son, Henry Noel Hearder M.P.S.

Hearder's family life was rather sad. His wife and three sons were dead before he retired. Henry Noel died at the age of 30, after two years in the country, at Brent, for "the benefit of his health". His second son was killed on active service against the Matabele. Two daughters survived into post-World War II years; Laura Hearder was bombed three times in the blitz and had to leave Plymouth.

My family remembers many anecdotes of "Cousin Harry". A girl was in the habit of coming in to the shop for Harry to put a drop of perfume on her handkerchief; on one occasion she came with her "young man" who liked the perfume and asked for drop on his handkerchief. Harry put a good drop of carbon bisulphide on it and the two went off waving the handkerchief like a flag. Being annoyed by a dog which persistently visited his shop front, he waited until he saw it coming and put down a sponge soaked in .880 ammonia.

He made a life-long hobby of exploring Dartmoor, with friends, club parties and alone. He was a friend of Crossing, who wrote the definitive "Guide to the Moor" and who records that, in 1905, Harry Hearder took out to Cranmere Pool (the most inaccessible spot on Dartmoor) a visiting book in a box. I used it in the early 'Thirties, and I believe there is still one there. One hot day, about the turn of the century, he took my Uncles — then young men — on a long walk into the bleakest part of this "Last Wilderness". At the hottest time of the day he remarked, "Couldn't you do with some beer?" — which was uncomfortably obvious. Then he searched the area with his binoculars, and pointing to a nearby tor said, "That looks a likely place to find some" and in a cool crevice of the rock were indeed the four bottles he had put there the week before.

Snakes, especially adders, were a special interest; he was very knowledgeable and could catch them safely enough, although once he was bitten and had to walk many miles across wild ground before he could get medical help. Although he was treated at once he was ill for several months. He treasured two autographed letters from the great T.H. Huxley thanking him for "consignments of vipers".

As one might expect, he was a totally consistent agnostic, although entirely tolerant. His daughter, Laura, who kept house for him all the time I can remember, held strong fundamentalist beliefs; I remember her saying to me, of her brother, long since dead. "A daring free-thinker they used to call him but he's burning in hell now". Yet father and daughter lived amicably enough, in spite of a little teasing from Harry about her chapel-going.

In 1922, when I was eight, he found for me an old-fashioned box plate camera, took me down to his old shop, had six plates put into it and showed me how to use it. I no longer have the photographs, but two were good and that was the start of my oldest hobby. I remember, also at this time, my mother had a blinding headache; he offered to cure it, but said what he was doing required great care. He put cotton wool in the bowl of a pipe, dropped a little chloroform on it and blew the vapour very gently into her ear. I remember the astonishment on my Mother's face as the headache vanished.

He smoked a lot — "I could buy a house with what I've spent on tobacco" he used to say. He always smoked a pipe formed from a bowl and mouthpiece pushed into the ends of a foot of dried stem from some unbelliferous plant. Each year he collected a suitable supply.

The last time I saw him, at 87, he was still straight-backed with twinkle in his eye.

Harry Hearder died in 1933, after a short illness, aged 88. He had lived all his life in Plymouth, a valued citizen, a fine professional and a worthy descendent of the men who held the city for Cromwell and have always made up their own minds. His successor in his business, which still carried his name, attended his funeral. The business survived World War II in his premises, but they disappeared during the Abercombie rebuilding of Plymouth.

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PHARMACEUTICAL HISTORIAN

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Newsletter of the BRITISH SOCIETY FOR THE HISTORY OF PHARMACY
Contributions to the Editor: Arthur Wright F.P.S., D.B.A. · 36 York Place · Edinburgh · EH1 3HU

BRITISH PHARMACEUTICAL CONFERENCE

Members attending the Conference History of Pharmacy Session should inform Mrs Cameron Secretary B.S.H.P., 36 York Place, Edinburgh EH1 3HU so that adequate arrangements can be made for the meeting which is to be held in the Molecular Sciences Theatre, University of Sussex on September 16 at 2-15pm. As indicated in the previous *Historian* Mrs Mary Briggs is to give a paper on "The History of Medicinal Plants in Sussex" and Dr T.D. Whittet will present a paper on "Apothecaries and the Development of Sea Bathing". The Society is supporting a video display on the career of a Hove chemist James Williamson a pioneer in cinematography.

Again R. Gordon Drummond Ltd have generously undertaken to sponsor the History of Pharmacy Session.

OFFICERS

At a meeting of the committee on May 21 the following officers were re-elected:

President:	Mr A. Wright
Vice-President:	Dr W.E. Court
Joint Secretaries:	Dr T.D. Whittet
	Dr W.E. Court
Treasurer:	Mr J.C. Bloomfield
Auditors:	Mr D.C. Harrod
	Mr A.H. Briggs

AN EDINBURGH TERCENTENARY

During the Tercentenary Congress of the Royal College of Physicians, Edinburgh, September 6-11, the afternoon of Wednesday September 9 is to be devoted to "Pharmacy and Medicine in Edinburgh".

ANNUAL GENERAL MEETING

Members of the Society will have received a copy of the AGM held at Winchester on March 28 in which reference is made to the generous support the Society received from individuals and companies.

The Society is extremely fortunate in the continued generous help from the Pharmaceutical Society. Not only for granting facilities at 1 Lambeth High Street for committee and general meetings, but also for the secretarial services provided by Mrs Cameron (at York Place, Edinburgh) and the accounting expertise of Mr Penson financial officer P.S.G.B.

FOUNDATION LECTURE

It was a "full house" when Prof. Sir William Paton gave the Fourth Foundation Lecture on May 21. An abstract from his paper is included in this *Pharmaceutical Historian*. In addition to a fascinating address members again enjoyed the hospitality of E.E. Squibb & Sons Ltd who have sponsored these lectures since their inception.

BOOKS

Costs have tended to restrict the publication of new books in colour, and therefore pharmaceutical historians will be envious when they handle "Pictorial History of European Medicine and Pharmaceutics" by Jósef Antall. The author is the director of Semmelweiss Museum of Medical History, Library and Archives, Budapest, and together with the publisher Corvina Kiadó, Budapest is to plates depicting Europes medical past.

In describing the book the author requests the reader to accept him as "a guide or chatting partner who will show him around some of the relics of European healing." The text, in English, comprises an introduction of 14 pages which briefly reviews the history of medicine from primitive man. The colour plates are then accompanied by separate short description texts.

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FOUNDATION LECTURE

A 1620 manuscript: Yesterday's therapy in the light of today's pharmacology

By W.D.M. Paton

The following is an abstract from Prof. Sir William Paton's paper presented at the Society's Fourth Foundation Lecture given on May 21.

I acquired a small, not important, manuscript from the bookseller R.D. Gurney. It is a collection of medical 'receipts' of around 1620 which he obtained originally in the north of England from among a large number of papers from the branch of the Russell family descended from Lord John Russell. Looking through it, deciphering as best I could, and wondering, as one tends to do, at the quaintness, I was suddenly struck by one of them — it is as follows:

> ***'For the pleurisy.*** *Take an apple, cutt off the top and pull out the core. Then put within the apple a prettie quantitie of olibanum, cover it again with the top and wrap it in wet paper and so rost it in the embers as you do a warden, and let the patient eat the apple.'*

This jumped me back to childhood pneumonias in pre-antibiotic days; and I wondered, what better treatment could one have suggested in the 1600's, with no chemotherapy, no aspirin or codeine, not even Antiphlogistine, no glucose drinks, no professional nursing? The prescription, in effect, was something warm, sweet, demulcent, interesting, comforting, with a remote hint of antisepsis from the resin. I found I could not improve on it with what was available then; and it seemed a great deal better than nothing. It made me want to look at the therapy of the day *in its own context* — the more so in the light of the common presumption today that medicine was either harmful (e.g. bleeding, purging and vomiting) or useless, and that only changes in hygiene or standard of living mattered at that time.

We need to know, amongst other things, what diseases had to be coped with, and what resources of physiological and pathological knowledge, and of technique and materials were available. The manuscript itself in its 65 pages gives some evidence. Pages 6 to 10 contain a brief treatise on the anatomy of the human body: this consists of a rather primitive rendering of Aristotle, Hippocrates and Galen. There is the *anima concupiscibilis*, the *anima animosa* or *irascibilis*, and the *anima rationalis*, powers associated with the liver, heart and brain respectively — otherwise known as animal or vital spirits. There is something on the faculties, instrumental or non-instrumental; on the soul and the conflict of its reasonable part with other parts (failure of reason to dominate 'breeding great distresses unto the bodie'); on an elementary anatomy — epidermis, dermis and fat, the membrane over the flesh, muscles; on the liver and the stomach, one hot, the other cold; and on the heart — as gathering blood 'with two flappers or skynnes to the intent that blud which is once yn should not retire backe again', with all the dangers of it becoming too hot and boiling. Some of the receipts go back at least to Celsus. Others, with verdigris, lead, mercury, tin, reflect perhaps the iatrochemists and Paracelsus. A 'lymbicke' is referred to twice, but otherwise only domestic items are cited. There is one reference to the Queen's Apothecary, in Cheap Side from whom oil of salt (hydrochloric acid) can be obtained. Of over 200 receipts, some reflect the doctrine of signatures — that God marked the elements of the natural kingdom with the diseases for which they could be used; others astrology, for instance with special times for treatment, or with four words to be said 'when the water seetheth' 'Cank, colie, yotte, abyron. A great many receipts seem to me to be more those of an ordinary country herbal, making use of what grows immediately around. Others rely on imported resins and the like. All in all, the picture is of an unsophisticated inheritance from Greek and Latin medicine, modulated by Paracelsus and iatrochemical medicine, benefitting from the apothecary's international trade developed over the centuries, still under the influence of astrology, translated into the British countryside, and the whole still untouched by the 'new science'. It requires too great a feat of the imagination to get 'inside it' successfully; but I suppose it is as though the approach to medicine was that of minds as competent and mature, intrinsically, as our own (after all it was the age of Shakespeare) yet operating with a technical knowledge less than that available to a schoolchild of today.

The pattern of disease

What diseases were to be dealt with? *Table 1* lists the main categories, and the number of remedies cited. It is very risky, of course, to infer that these adequately describe the pathology of the day. Paul Slack, in a recent article (1979) has analysed two published vernacular treatises; the index to Gerard's Herbal allows one to gather another pattern; and I turned to a handbook of general practice by an old friend (Hodgkin, 1966) who recorded the frequence of consultation in his practice in modern times. I think one can recognize broad similarities between the old and the new.

The most striking difference from modern practice is anxiety — number 2 after influenza in Hodgkin's list. Yet this aspect is not missing in the manuscript and is worth a digression. In the theoretical section, the writer says 'If the soule be so weake that the reasonable parte cannot bate the domination thereof, it breedth greate distresses unto the bodie...

On the whole, it seems fair to regard the manuscript, and similarly Slack's books and Gerard, as giving a rough picture of the everyday pathology of the time.

In turning to the drugs, one faces the problem of how to give a brief survey of between 200 and 300 remedies, distributed over a similar number of receipts, at an average of around 5 per receipt.

A large group is the *aromatic herbs* that would yield volatile oils: cloves, fennel, aniseed, mint are especially common. *Products of the rose*, particularly rose water as a general vehicle, are also common. Next are *the resinous group* (e.g. olibanum — i.e. frankincense, galbanum, rosin, myrrh), used especially, sometimes with mastic, in plasters. Two special aromatics in a relatively purer state stand out: *turpentine* and *camphor*. With both plasters and ointments there is a range of *oils, waxes and animal fats*, providing a corresponding range of melting points, as well as varying composition. Among the commonest single remedies, used both locally and systematically, are *wine* and *honey*. There is an important group of *inoganic materials* that tend to go together: cerusse (zinc oxide), litharge (lead oxide), verdigris (copper acetate), vomis Jovis (a tin product), calamine (zinc carbonate), lapis lazuli (a

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silicate containing aluminium and sulphur), alum (aluminium sulphate), quicksilver and *terra sigillata* (related to kaolin, with some iron in it). One can mention, too, coral, cuttlebone, eggshell and 'crab's eyes' — the crayfish concretion — essentially sources of the acid-neutralizing calcium carbonate. In a related vein, there are demulcent or absorptive vehicles: tragacanth, liquorice, milk, wheat flour, bread, even paper; and calamine and terra sigillata sometimes serve in this connection. I have identified only a few specific purges, usually *senna*, and also *rhubarb* and *colocynth* and no emetics. *Egg* is quite common, with the yolk as a bland thickener, or the white as a vehicle or clearing agent. Finally, one should notice that when one uses some herb, or the juice from its stem or leaves, one will be getting salts from it: and with local applications at least, they might, in modern jargon, serve to adjust the tonicity of the preparation.

What can be said about the effectiveness of these substances? First, the *aromatic herbs*: although the active principles, the terpenoid volatile oils, very considerably in properties, they all share an *anti-bacterial* property. They would thus be disinfectant (reducing infection) and antiseptic (reducing purulent exudate). This action is strong with the well-known thymol. The same is true of the similar substances in the *resins*: these could in addition contribute benzoic and cinnamic acids, which are also disinfectant. Some of the old urinary antiseptics acted in this way, cubebs, copaiba, sandalwood; and with these the effect after an oral dose was enough at least to delay the multiplication of bacteria in a urine sample. I think, therefore, that any local application containing such herbs or resins must be thought to have a significant, if modest, antibacterial action; enough perhaps to prevent superinfection, and even to reduce extension of infection and to assist healing, even if it could not kill staphylococci or streptococci in the deeper tissues of the wound. Given by mouth, however, one cannot really believe they did much for a lung infection, when dilution and metabolism is taken into account. The same would apply in the urinary tract disorders in the manuscript, where the aromatics actually used were not the most potent ones. At most they might prevent exacerbation of the disease while the immune mechanisms of the body operated.

TABLE 1

Patterns of Disease

	MS (Receipts c. 1620	Gerard (Index entries) 1633	Slack (Common Receipts) 1579-1596	Hodgkin (suspected °/oo) 1966
Intestinal	19	284	11	143 +
Respiratory	19	117	38	133 +
Jaundice	17	59	11	12 +
Renal, urine, yard	28	143 +	85	48 +
Piles	7	28	—	14 +
'Gout'	14	37	—	—
'Canker'	13	—	11	—
Skin	5)	49 +	12	142 +
Ointments	20)			
Plasters	22	—	—	—
Plague	2	—	30	—
Ague	1	33	46	many

'Consumption' 4 Headache 46 Dropsy 49 Falling sickness 45 Sciatica 37 Anxiety 147

When these substances were incorporated in a plaster over, but not directly in contact with, a painful or diseased region below the surface, what could they do? The familiar action, of course, is reddening and warming of the skin, perhaps some local sensory stimulations too — the classical pattern of the counter-irritant. The justification, suggested by Henry Head, that impulses flowed into the spinal cord, not only producing, perhaps, a deeper reflex vasodilatation, but also interacting with the pain signals from the diseased area, has received modern support with the 'gate' theory of pain sensation, and with the evidence for opiate-like peptides in brain and spinal cord capable of acting as intermediaries. The case for counter-irritants, therefore, seems to have stood over the centuries: a hot water bottle to an aching tooth or back, or its equivalent, is as strong, or as weak, a therapeutic measure now as then. But one may ask whether anything is *absorbed* from the plaster. I am not aware of a detailed study of this; but if one consideres some of the more modern statements (e.g. in the U.S. Dispensatory of 1943), it looks as though (very roughly) such a plaster contains about one human oral dose per square centimetre, and that about 1% of what is in the plaster is absorbed; so that for a 10 cm x 10 cm plaster, you are on the verge of systemic effects, at least for substances able to penetrate the cells, like atropine or cantharadin. In theory, then, the resins or fragrant oils in a plaster might act systematically; yet, when one does the appropriate sums, I doubt whether this was in practice significant.

The *inorganic materials* are weightier. Their principal use in the manuscript is in diseases of the 'yard', diseases which I take to be generally venereal and in one receipt is explicitly referred to as the pox. The approach is essentially three-fold: (a) a heavy metal, quicksilver (dispersed as finely as possible, in fasting saliva for the purpose — an interesting excipient, isotonic and rather 'physiological'), alum, litharge or verdigris, sometimes with terra sigillata (presumably as an absorbent); (b) some aromatic (e.g. camphor, a resin, or thyme) and (c) an excipient such as animal grease or sweet almond oil, or vinegar, or ale, or honey. Thus for the pox, the receipt was an ointment of galt's grease, quicksilver, white lead, rock alum and resin. In another gentler prescription, 'to mollifie burning of the yard', an injection of camphor, honey of roses and rose-water is proposed. Some of these treatments sound more comfortable than others; and they would not do much for systemic infection. But one can certainly agree that they are considerably better than no treatment at all.

There are other local applications. For a *canker of the mouth*, which I think means any ulcer, whether malignant or not, the three receipts prescribe alum in honey, together with an aromatic, and in one of them vinegar. For *watery eye*, there is fennel water, coral (which would make it alkaline) and incense or myrrh — a reasonably bland mildly disinfectant collyrium. There is a fascinating receipt *for deafness*, perhaps due to wax plus some infection. Take an onion, fill it with oil, frankincense and aqua vitae, roast it, wring out the fluid and drop this in the ear. The oil, the brandy (if it had not evaporated) and the resin make a reasonable antiseptic and cerumen-dissolving mixture; whether some thiols from the onion assist is an interesting question. *Ointments* generally run along reasonable lines; sometimes simply emollient; sometimes with calamine or terra sigillata as drying agents; sometimes with turpentine or verdigris or camphor. One notices litharge for a sore from scratching, possibly reflecting lead's capacity to reduce irritation; and this reappears in the use of litharge in oil of violets to annoint piles. *For teeth*, pumice with an aromatic is reasonable; one wonders about horse grease to remove worms in teeth, and about henbane (which would provide hyoscyamine) to make a tooth fall out. But the juice from broom, applied locally, is interesting: it would probably contain sparteine, which (rather unexpectedly) is reported to have some local anaesthetic action.

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One last aspect of local application: the common use of wine or honey.

I have left out many aspects, and focussed, possibly too sympathetically on the more positive side. Pulling it all together my working conclusions are roughly as follows:

(a) that for damage to the outer surface of the body, there were really quite effective remedies available, to combat infection, to absorb exudate, to soothe and protect;

(b) there were effective counter-irritants; the plasters also probably served the purpose of sticking plaster today — physical protection;

(c) alkaline compounds, essentially calcium carbonate, were available, although their use cannot be related, for instance, to anything construable as peptic ulcer.

(d) Beyond these, one is in the less definite world of general patient care: soothing substances for cough; agreeable drinks as part of a controlled regimen; ways of purging or of reducing intestinal action; sweet smelling pomanders; the presentation, exemplified by honey of roses, of medication which, if not in fact effective, at least looked, smelt and tasted agreeable.

So far as *patient satisfaction* went one could guess these steps were valuable, even though the one page which mentions costs suggests that some of the benefits were not inexpensive; a quantity of 35 drachms cost 24 shillings, if I have transcribed correctly, perhaps 1/6 per dose, or around a day's wage. I would also be inclined to argue that *morbidity*, so far as diseases of the surface of the body were concerned, was significantly controlled — a real benefit. As to *mortality*, it would be a bold man who said that any of the measures outlined in fact prolonged or saved life. Yet the converse statement, that they could not do so, seems also, to me, too strong. Patient comfort and satisfaction, and restraint of the spread of infection both in the patient and to others, are not negligible. Further, when one looks at what is happening to chemotherapy of infections today, where resistance to the drug develops and the role of developing immunity in the patient is being seen as increasingly important, one wonders if even apparently trivial systemic antibacterial effects, acting additionally to the patients own defences, might tip the balance. But it would be a marginal effect, and despite recent advances in analysing the mortality of the time, it is hard to see how it could be convincingly tested.

For the history of medicine, therefore, one could argue that, because the therapy can be seen as not entirely trivial, it is worth trying to understand it better. But to go deeper is rather demanding. We do not reliably know the patterns of disease at that time. I suppose, too, that it is uncertain whether analysis of plants today gives a result valid for the same species nearly four hundred years ago. We do not know how much the remedies were used, although I have tacitly assumed this, nor by whom. Finally, our knowledge of the possible action of these substances is vestigial, chiefly because the techniques for deeper study came in at the same time as they were replaced by much more effective drugs. There are more important things to do. Yet when one sees how, from the enormous array of plants available, it is a relatively small number that have held a consistent place, and when one looks at their chemical structures and wonders how they do what they can do, one feels one hand is near the end of some thread leading, if not to a wonder drug, at least to some new understanding of how the body works.

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The Health of Hampshire Towns in an age of revolutions

by MRS P. STEVENS*

The American Revolution, or War of American Independence, began after the Treaty of Paris (1763) which ended the Seven Years' War. In 1775 fighting broke out between British troops and the colonial militia; local volunteers were recruited to fight abroad, but the major effects in Hampshire towns were from the sea battles and the blockade of Atlantic ports. In 1779 Winchester suffered an outbreak of typhus; Portsmouth and Gosport were also full of soldiers and sailors recovering from typhus during the winter of 1779-80. Hundreds of Spanish sailors were captured in a chase to the West Indies and back, and early in 1780 they were brought to Winchester and installed in the King's House, the palace begun for Charles II but never completed owing to the King's death. The Spaniards were marched inland from the coast in bitterly cold weather and huddled together for warmth. Typhus quickly spread in these unhealthy conditions; one remedy was to fumigate the rooms with saltpetre mixed with strong sulphuric acid, effectively choking the men rather than the lice which caused the typhus.

Dr James Lind was brought from Haslar Hospital, Gosport, to stem the epidemic, but could not induce the Spaniards to strip and wash in such a cold climate. Finally, when the cold spring gave way to summer, parties of prisoners were marched down to the River Itchen and ordered to bathe naked while their clothes were baked to kill the lice. The epidemic was thus contained but over 300 had already died. A further health hazard was the exchange of prisoners and the movement of diseased men through the city: if Winchester had not acquired a degree of immunity from the 1779 outbreak of typhus, the consequences would have been drastic.

The French Revolution beginning in 1789 brought thousands of political refugees to England; these were augmented in 1792 by hundreds of Roman Catholic clergy who arrived in Winchester. 700 priests stayed in the King's House and 300 were lodged with families in the city. In 1795 General Delancy came to Winchester to prepare the King's House to receive troops. The old barracks in St. John's Street were made of wood and thatch and situated in a densely populated area. A recent fire at the barracks had accentuated the risk to local residents, so in 1796 the French priests were moved north to Reading and Thame and the King's House used as barracks for 2,000—3,000 troops. the fear of invasion from revolutionary France caused the local gentry to raise corps of volunteers to form a Home Guard.

Repeated alarms followed by relaxation of regulations meant that regular troops and volunteers were mustered, stood down or moved about as the situation demanded. The soldiers and sailors were often accompanied by their wives and girl friends, and camp followers became a serious problem with the spread of venereal diseases. The County Hospital in Winchester had two wards set aside for venereal diseases, and a visitor to Portsmouth described the "riotous, drunken and immoral scenes" in vivid detail in 1795.

The Napoleonic wars following the French Revolution brought other health hazards. Many of the ships captured in naval battles were set alight in Portsmouth causing fires to spread to other ships in the dockyard. Over 18,000 prisoners

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were kept at Portsmouth at one stage, half of them in rotting hulks. The conditions in these hulks were so overcrowded that men suffered from the heat in summer. In the bad winter of 1796-97 many coloured prisoners at Portchester Castle lost fingers and toes from frostbite and were moved to the hulks to gain warmth from the proximity of human bodies. Boys of nine and ten years old shared the frightful overcrowding, which with skimped rations, inadequate clothing and infestation of rats and lice led to skin diseases, typhus, venereal diseases and lung disorders. In 1809 Haslar Royal Naval Hospital opened its doors to soldiers evacuated from the Battle of Corunna; many were in the advanced stages of typhus and thousands died in the epidemic.

The Agricultural Revolution began with the series of Enclosure Acts in 1760 which continued until the 1830s. At a stroke the mediaeval open-field system was swept away and the modern pattern of fields was established. When land was handed down from father to son different classes of land tenure were possible and common land was available for even the poorest family to graze a cow or pig. With the Enclosure Acts areas of common and waste land were added to the new fields and fertilized to grow crops; thus greater productivity was achieved, but at the expense of a new class of landless labourers. Unemployed farm labourers flocked to the towns in search of work and often squatted in miserable hovels causing serious overcrowding problems and facilitating the spread of disease. On the credit side innovations were sponsored by various Agricultural societies which improved the quality of livestock by crossbreeding and introduced new species of crops such as the Swedish turnip (Swede) as winter fodder for cattle. Thus more food of better quality was produced giving more nourishment value and increasing resistance to disease.

Many of the agricultural improvements were the result of the Industrial Revolution which brought mechanization to a large number of processes previously done by hand. The use of steam engines for pumping out mines increased coal production, and consumption rose accordingly. Warm rooms and hot water encouraged people to wash more frequently, especially when new methods of soap manufacture made soap more readily available; the improvement of hygiene reduced the risk of infection from typhus and other diseases. The Industrial Revolution also brought improvements in transport. Perhaps the greatest impact on public health was the increased availability of cotton for such items as sheets and underwear. Raw cotton became cheaper after the introduction of slavery in America and manufacturers took advantage of steam power and the factory system. Cotton became cheaper than wool, showed up dirt better, was easier to wash and quicker to dry; the change from woollen to cotton underwear made a significant contribution to hygiene and the control of typhus.

The Intellectual Revolution started earlier in the century with Locke, Hume and Isaac Newton; the new ideas of the Age of Enlightenment brought more humane attitudes towards mental illness after George III's recurring bouts of insanity. The education of the poor was taken seriously. Several learned societies were established to promote scientific enquiry, and publications such as the Gentleman's Magazine as well as newspapers like The Times and the Hampshire Chronicle helped to disemminate information of scientific and medical interest.

The Age of Revolutions also saw the establishment of new hospitals such as the County Hospital at Winchester founded in 1736 and moved to Parchment Street in 1759. Haslar Royal Naval Hospital at Gosport was planned on the lines of Greenwich Hospital; finished in 1762 it had over 2,000 beds and was the largest brick building in Europe. Dr James Lind was the first senior physician and imposed strict rules for diet and hygiene. All patients were stripped on admittance and washed with soap and warm water, then given hospital dress while their own clothes were washed. In cases of fever, the patients' clothing was fumigated with brimstone in a smoke-house then baked and sprinkled with vinegar. Fever wards were isolated from the main wards; Dr Lind stressed the need for ventilation and that the correct medication should be given to each patient. His methods were so successful that Haslar was later used as a training hospital and became a postgraduate clinical school. Other institutions such as workhouses had sick wards for their inmates, many had pest-houses, and the Isle of Wight workhouse had a resident surgeon who acted as apothecary and dispensed medicines.

In Hampshire towns druggists like George Earle of Winchester and his nephew John Earle dispensed drugs, cosmetics and spices. These shops also stocked veterinary medicines for the local farming community and patent medicines which were advertised in the Hampshire Chronicle. Doctors at the County Hospital treated patients privately, as Jane Austen came to Winchester in 1817 to be near Dr Lyford. Dr Smith began smallpox inoculations in 1773 and itinerant doctors advertised inoculation sessions with free periods for poor people. The spread of smallpox was assisted by improved road transport, and towns such as Basingstoke, Whitchurch and Andover on the main road from London to Exeter experienced regular epidemics. Large crowds such as attended the Michaelmas fair at Weyhill near Andover were instrumental in spreading smallpox which could appear in a mild as well as a virulent form. Bad outbreaks occurred in the 1760s, 1778-9, 1781 and in the 1790s, but gradually the nature of smallpox changed and the disease became endemic. The homely technique of self-inoculation as publicized by Lady Mary Wortley Montagu was discouraged by professional doctors, especially after 1798 when Edward Jenner introduced his vaccination with cow-pox. The Vaccination Institute was founded in 1807 and by 1820 regulations insisted that doctors and hospitals should conduct inoculations on an official basis.

Other problems of public health in Hampshire towns centred on water supply and sanitation. Winchester had an abundant supply of water from the River Itchen and various streams which flowed through the Brooks area. There were also many wells in the higher parts of the city, mostly privately owned, and the town pump stood near the City Cross in High Street until the late 19th Century. Portsmouth also had several wells but they fluctuated according to the rainfall.

The periodic influx of large numbers of people crowded garrison towns like Winchester and Portsmouth increased the demand for water. The disposal of waste water became a burdensome problem in Portsmouth and the low-lying areas of Winchester. Most houses had cess-pits but these often drained into wells: the overflow from the County Hospital cesspit emptied into the stream in Upper Brook Street, and several privies opened directly into the Brooks. In 1770 efforts were made to remedy the situation with Pavement Acts: these provided for "the better paving, lighting, cleansing and regulating" of streets. In Winchester the Pavement Commissioners appointed "scavengers" to sweep up horse droppings on a contract basis, and ensured that pavements were kept in good repair. From time to time the Brooks were "scoured" or dredged clean when the deposits of solid rubbish threatened to choke the free flow of water.

The frequent alarms and excursions of the Age of Revolutions brought thousands of extra people into Hampshire towns: refugees and prisoners of war, soldiers and sailors, camp followers and prostitutes, unemployed farm labourers, merchants and horse-traders, all swelled the urban population. The sanitation situation became desperate, leading to outbreaks of cholera in the 1830s and 1840s, but Winchester was not properly drained for another forty years.

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Letters

H.P. Hearder

I was most interested to read Mr Lamble's account of H.P. Hearder in the April edition of the *Pharmaceutical Historian*.

My father, the late Stanley Vincent Roberts, purchased the Westwell Street business from Mr Hearder in 1914 and was there up to 1922 when he moved to London to take over Mr W.F. Gulliver's business in Lower Belgrave Street. My father shared Mr Hearder's love of Dartmoor and from several letters written during the war years (on Westwell Street notepaper) it seems that Mr Hearder often returned to do relief work in his old pharmacy.

We did not live over the shop, and my childhood memories of Westwell Street are therefore hazy, but I have one vivid memory of being taken into the back office to see a skull and some bones which had been dug up on the site during some work on the drains. I have in front of me a small envelope, containing two neatly wrapped powders labelled Hyd. c.Soda, bearing the legend

H.P.HEARDER, M.P.S.
Dispensing Chemist to H.R.H. the Prince of Wales &
The Royal Western Yacht Club.
24, Westwell Street, PLYMOUTH.

Hugh V. Roberts
Tenterden, Kent

Wigan Dispensary

Passing through Wigan in Greater Manchester a short time ago I decided to investigate some pharmaceutical history. The Royal Albert Edward Infirmary was founded in the year 1873.

Before this time the sick poor had been attended to at the Wigan Dispensary, This had been established in 1798 and had moved to new premises in King St, Wigan in 1801. The earliest Wigan Dispensary Rules & Reports are to be found in the Wigan Public Library. The Infirmary itself had no knowledge of its former history other than that there was a Dispensary in the town. The earliest Rules & Reports available are for the year 1843 and the latest for 1865. The 1843 Rules show no real facts or figures but the 1852 report show the following:

1852 —	Honorary Physician	James Stewart MD
	Honorary Surgeon	Mr Wright
	House Surgeon	Mr J White
for —	House Surgeon	Mr W Roocroft
1853	Hon. Physician	James Stewart
	Hon. Surgeons	Mr Wright/Mr Wright

The word Apothecary is mentioned only one and this is in the 1852 Rules, whereby the Apprentices must obey all the Rules of the Dispensary and be responsible to the Hon Surgeon or Apothecary. It does not appear in later versions of the Rules.

Among the interesting items in the Rules are the Accounts section, some examples are as follows*—

1852	House Surgeon's salary	£100.00.00
	Leeches	7.16.0
	Drugs	99.15.4
1853	House Surgeon's salary	100.00.0
	Leeches	7. 8.4
	Drugs	52. 5.0
1855	House Surgeon's salary	100.00.0
	Leeches	11. 6.6
	Drugs	70.18.1

In 1855 The Honorary Surgeon was Mr WHITE and the House Surgeon, Mr J A VINCENT.

Mr Stuart MD had died the previous year and there was no replacement up to 1865, as Hon. Physician.

There is a list of donations from local people to the Dispensary and one interesting entry is a £5 donation from Butterfield, Clarke, of York, wholesale druggists (all drugs had to be purchased from wholesale druggists).

Another fact of interest is that by 1865 the buying of leeches had depreciated to 7 shillings and 4d for the year. Did leeches start to dwindle nationally around this time?

I hope to continue the search for apothecaries in the 1700 period, however until then if anyone has any ideas on wholesale druggists in the early period I should be pleased to hear from them.

Geoff Yaffe
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Contributions to the Editor: Arthur Wright F.P.S., D.B.A. · 36 York Place · Edinburgh · EH1 3HU

Diary Dates in 1982

MARCH 1
The Fifth Foundation Lecture to be given by Dr Frank Hartley. His topic is "Early Pharmacopoeias" and again members will enjoy the hospitality of E.E. Squibb & Sons Ltd. Time will be announced later.

FEBRUARY 11 — MARCH 20
Details to be published in The Pharmaceutical Press.

All the above meetings are to be held at The Pharmaceutical Society, 1 Lambeth High Street, London SE1 7JN.

APRIL 2—4 B.S.H.P. Spring Conference. Warwick.

SEPTEMBER 15
British Pharmaceutical Conference. History of Pharmacy Session. Edinburgh.

ELECTION OF MEMBERS OF COMMITTEE

Nominations for the annual election of Committee members should be submitted in writing to the Secretary, B.S.H.P. 36 York Place, Edinburgh EH1 3HU on or before February 1, 1982.

Members of the Committee due to retire in 1982 are:—

Mr J.C. Bloomfield
Miss D.A. Hutton
Mr A.G.M. Madge
Dr T.D. Whittet

ANOTHER SUCCESSFUL SESSION

There were many enthusiastic comments after the History of Pharmacy Session, British Pharmaceutical Conference Brighton. A large audience supported the vote of thanks to the speakers, Mrs Mary Briggs and Dr T.D. Whittet. There was a special mention of the excellent colour slides shown by Mrs Briggs some of the plant transparencies were outstanding.

R. Gordon Drummond Ltd sponsored the occasion and the company's generosity includes the publication of this issue of the Historian which contains abstracts from both papers.

SHORT PAPERS

In spite of the lack of response to a previous announcement, the Committee members still feel that opportunity should be given to members who wish to present short papers at The Spring Conference to be held in Warwick April 2-4 1982. There is no restriction of topics which may deal with the history of individual pharmacies or the pharmacists who ran them, artefacts, proprietary medicines, apothecaries or formularies etc. etc. The first step is to let the secretary (York Place Edinburgh) know the proposed title and the length of the paper. Do it now!

NEW BOOKS

Shire Albums "illustrate topographical, industrial, rural and social themes with photographs, prints and engravings accompanies by an explanatory text". They are a successful series extending from "Beadwork" to "Writing Antiques". The latest is the "Victorian Chemist and Druggist" (95p) Shire Publications Ltd, Church Street, Princes Risborough, Aylesbury, Bucks. The author, W.A. Jackson has managed to compress into 32 pages information on the shop, storage containers, dispensing equipment, counter lines, chemist's sundries and doctors' instruments as well as an introduction which covers the period 1617 to the Pharmacy Act 1868. Many Shire Albums are used as *aide memoirs* by lecturers. This book is likely to be similarly treated in spite of the inevitable "sketchiness" of the information given. Pharmaceutically it is an excellent "compressed product".

"Pharmacists in the Wider World" is a new work by Leslie G. Matthews, commissioned and published by Merrell Pharmaceuticals Ltd. It closely follows the excellent standard and style of his previous work "Milestones in Pharmacy" and again both author and publisher are to be congratulated on the result of their collaboration. Mr Matthews has prepared some thirty short essays each dealing with an individual who has sought and found recognition in a wider sphere of activity outside pharmacy.

The range is wide including F.B. Benger, Alfred Bird, Joseph Goddard, Luke Howard, W.S. Glynn-Jones, H. Humphreys Jones, William Lookworthy, William Ransom and J.W. Swann.

They, and others, have been grouped under five headings:— "Domestic Products", "Natural History and Exploration", "Politics", "Professional Organisation" and "Industry Invention and Science".

The Wellcome Foundation Ltd has assisted in the publication of "John Mcfadyean, Founder of Modern Veterinary Research" by Iain Pattison (J.A. Allen) £7.95. Mcfadyean received his veterinary diploma from the Edinburgh School in 1876. In 1882 he graduated in medicine and in science a year later. In the 1880s he was the only veterinary pathologist in Britain. In 1892 he became the first professor of Pathology and Bacteriology at the Royal Veterinary College, London and two years later was appointed its principal. Pharmacists with an interest in veterinary matters will find this book extremely interesting, especially the chapters dealing with Koch's theories on the transmission of tuberculosis.

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Sussex Medicinal Plants*

By MARY BRIGGS

The vegetation of an area depends largely on the geology, soils and the climate. A map of part of Sussex showing the villages and hamlets recorded in the Doomsday Book[1] in 1086 highlights the geological influence as all the settlements are on the southern coastal plain and along the well-drained chalk downland ridge. The northern two-thirds of the county was then impenetrable oak forest on heavy weald clay. These forests were still impassable in winter until Elizabethan times with only comparatively recent year-round access and development along the Forest Ridge. This forest was historically of great importance to Sussex, the Sussex Oak" *Quercus robur* provided the timbers for the great oak ships of the Royal Navy at the time of the Armada, and the forests were too a source of iron. The Hammer Ponds today are a relic of the great water-powered hammer forges used for smelting iron in the forest. Charcoal was another local product, the last of the charcoal burners could be seen at work in Sussex 20 years ago. The bark, twigs and side shoots of the oak provided the medicinal tannins used in former times, and more particularly the galls or "oak apples" were used. John Gerard in 1597 wrote "The decoction of Oke Apples steeped in strong white wine vinegar, with a little powder of Brimstone, and the root of *Ireos* mingled together, and set in the sun by the space of a moneth, maketh the hair blacke, consumeth proud and superfluous flesh...being washed therewith"[2] showing that the problems of greying hair and overweight were a preoccupation in Gerard's as in our own times? The Oak Marble or Aleppo Gall was deliberately introduced from the Levant in 1830; this gall is rich in tannic acid and tannins then were in great demand for the dyeing of cloth and the manufacture of ink. Very recently, an Oak Gall new to Britain was thought to be a spontaneous introduction by airborne wasps. This Knopper (or Crown) Gall *Andricus quercuscalicis*[3] which attacks and deforms the acorn cup causing knobbly protuberances, has spread from the West Country; first recorded in Sussex in 1976, in 1979 there was hardly an oak tree in the County unaffected. In very early times the possibility of finding the larva of the gall wasp still inside, or another insect taking shelter in the vacated larva tunnel, greatly intrigued. Gerard quotes Matthiolus "writing upon Dioscorides" on this, and nearly all these finds were apparently sinister. Four were listed: — ant, flie, creeping worm and running spider — and all but the ant of these foretold doom, the others being a portent of "warre", "scarcitie of victuals" or "great sickness or mortalitie". A medicinal plant which still today grows wild in St. Leonard't Forest is the Lily-of-the-Valley *Convallaria majalis*. This, the only wild flower that I know to be marked on the Ordinance Survey map, as "Lily Beds", is still used in Tincture and Extract as a cardiac medicine although all parts of the plant are poisonous when misused. The blood-red round ripe berries may have given rise to local legend that these plants sprang from drops of blood shed by St. Leonard while fighting the dragon monster of the forest. The Lily beds now are in a nature reserve managed by the Sussex Trust for Nature Conservation.

Trees are a notable feature of the Sussex landscape, with nearly 20% of the land surface covered by woodland (the highest percentage in the English counties). We are fortunate too to have the finest Yew Wood in Europe at Kingley Vale[4] where many fine old trees could possibly have been saplings when the Yew was the chosen wood for the longbows of the English soldiers. The very poisonous seed of Yew *Taxus baccata* is enclosed in a non-poisonous coral pink fleshy aril. The Juniper *Juniperus Communis* is a native shrub of Sussex downland but now decreasing in distribution; an infusion of the berries (now used to flavour gin and in cooking) was formerly used in medicine as diuretic antiseptic and digestant. The small-leaved Lime *Tilia cordata* is relatively rare in Sussex, although pollen analysis from prehistoric times indicate that this tree, the only Lime which is native to Britain, was then widespread. Today seedlings are seldom seen, possibly due to a change of climate. The flowers were official, an infusion being used as antispasmodic, diaphoretic and in the treatment of catarrh.

In contrast the Horse-chestnut *Aesculus hippocastanum* is common today but a relatively recent introduction as the first tree was brought to Britain in 1616[5]. The conkers contain aesculin saponin, mainly used now in a well-advertised bubble bath. Mistletoe *Viscum album* was featured in the correspondence columns of the medical journals earlier this year when a case of mistletoe hepatitis from herbal pills was suspected; this possibility was refuted and the plant is used in very small doses as a peripheral vasodilator, although Dr. W.A.R. Thomson[6] tells us that "the leaves contain some interesting active principles which as yet have not been fully explored" and in large quantities the plant is poisonous, affecting the heart.

Geological influence can again be seen where (calicole) lime-loving plants can be found where beds of Horsham Stone (a calcareous sandstone) and Paludina Limestone (Sussex marble) occur in the Weald Clay. The 'marble' was formed in mesozoic times when the large land snail *Viviparus sussexiensis*[7] lived browsing on the shores of the Wealden Lake; shells of dead snails dropped into the damp soil to form through time a stone in which the rounded convolutions of the snail shells can be still clearly seen in both the rough and the polished surfaces of this 'marble'. One of the plants associated with these bands of stone underlying the soil, the Toothwort *Lathraea squammaria* is an example of a plant used medicinally in the past through the Doctrine of Signatures. The drooping pearl-pink flowers within scaly bracts of this parasitic plant do look remarkably like molars — hence its use as a cure for toothache as the external appearance of a plant was thought to offer clues to its affect. I am grateful to the Librarian of the Pharmaceutical Society for permission to show the diagram from Giambattista della Porta's *Phytognomonica* of 1591 showing both human teeth and a Toothwort flower stem. Other examples of the doctrine are the Henbane *Hyoscyamus niger*, the seeds were once used for toothache as the shape of the seed receptacles was thought to resemble the formation of the human jaw, and also the Birthwort *Aristolochia clematitis* used to assist childbirth as the long tubular flower suggested the birth canal. This plant has been known in Mayfield since 1892, possibly an escape from a herbalist's garden there?

Another very curiously shaped flower is the Lords-and-Ladies *Arum maculatum*[8] which also has poisonous berries. The starch-filled tubers were used in Elizabethan times to starch the ruffs and, on occasion, the unruly beards also. The launderesses of those times complained that the *Arum* starch chapped their hands, and we know now that it was the needle crystals of Calcium Oxalate amongst the starch grains causing the soreness by piercing the skin. In Sussex we have the rare relative of Lords-and-Ladies *Arum italicum* which as a Mediterranean plant is only hardy along the southern edge of Britain where on average snow lies for less than five days in any year.

Among plants characteristic of wetlands a number have historical uses; the Sweet Flag *Acorus calamus* growing by Swanbourne Lake in Arundel Park, has leaves which are tangerine-scented when crushed and these were much used for strewing on stone castle floors; similarly the honey-scented Lady's Bedstraw *Galium verum* was for the ladies' bed-chamber. As many Sussex wetlands have been drained for modern farming some marsh and bog plants have become rare

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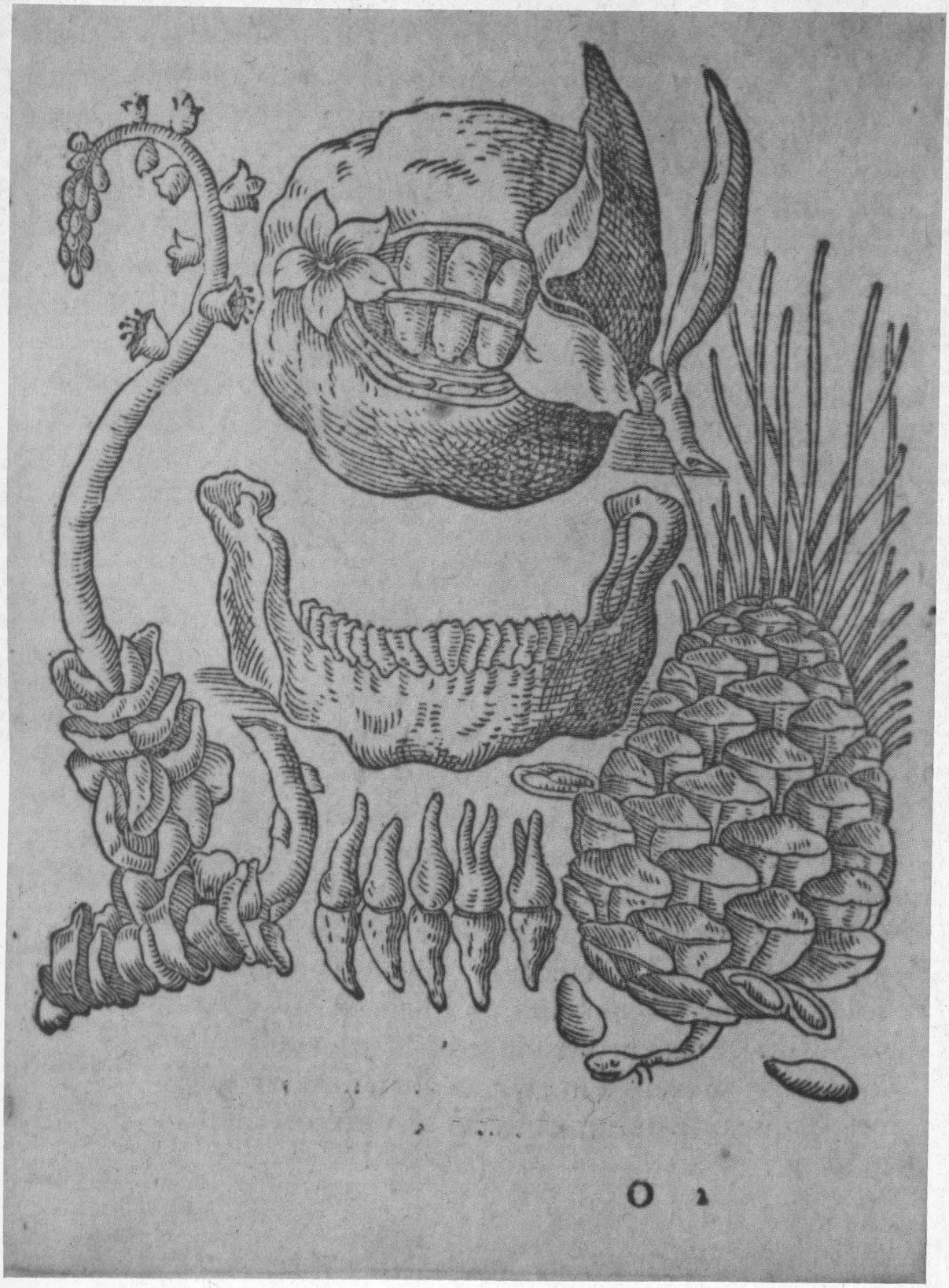

Diagram from Giambattista della Porta's *Phytognomonica* 1591

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e.g. the Cranberry *Vaccinium oxycoccus*; the berries were within living memory sold from Amberley Wild Brooks for six old pence a pint — but none grow on the Brooks today. The Bog Asphodel does grow still on damp Sussex heathland. It was named in 1730 by Carl Linnaeus[9] *Narthecium ossifragum*, meaning 'bonebreaker', as the breaking of bones by cattle had long been associated with the animals eating Bog Asphodel[10]. Dr G.A. Nelson of Leeds told us that for many years no toxic substance could be traced in the plant until he noted that all records of cattle poisoning had been in July — the flowering month. Analysis of the flower petals then revealed the presence of phototropic chemicals which could very possibly cause the animals to gallop crazily, fall and break bones because of the intense irritation to the skin in strong sunlight?

A less enigmatic poisonous plant which grows abundantly along streamsides and ditches is the Hemlock Water Dropwort *Oenanthe crocata;* this made headline news on several occasions when the roots were eaten in mistake for the superficially similar parsnip. More recently it was gathered by three Dutch students who cooked the stems and leaves in their evening stew at Blackboys Youth Hostel. Within ten minutes they were seized by violent convulsions and they were saved only by intensive hospital care. They had mistaken the Dropwort for Wild Celery *Apium graveolens* (which does grow sparingly in Sussex) as *Oenanthe crocata* was unknown in their native Holland. An interesting symptom of that poisoning was a complete memory loss of events following the near-fatal meal until their recovery. Another Umbellifer, the Giant Hogweed *Heracleum mantegazzianum*, introduced recently from the Caucasus mountains in Russia as an ornamental garden plant, has caused serious dermatitis under specific conditions when the plant sap contacts skin in strong sunlight (ultra-violet radiations of wavelengths of more than 3,200 Å)[11]. This plant has this month (October) been included in the *Wildlife and Countryside Act 1981*[12] as one of the four plants now illegal "to plant or otherwise cause to grow in the wild."

One of the most interesting herbal plants in Sussex is perhaps the wall Germander *Teucrium chamaedrys*[13] which grows today on Camber Castle as it was growing when recorded by the apothecaries James Petiver and James Sherard in 1714 in their "Journal of a Botanical Tour from London to Dover by Tunbridge Wells and Hastings". This, part of the Adversaria Petiveriana, Sloane mss No.3340 in the British Museum, is James Petiver's commonplace book, although the account of this particular journey has been added in possibly Sherard's handwriting. On August 20th 1714, on their way from Hastings to Kent, Sherard writes "being too early for the tide, we stopped at Winchelsea Castle, about two miles from the town. Here we were pretty near and had a full prospect of Rye. Upon that side of the Castle Wall that looks to Rye we found great plenty of Chamaedrys..." Where it can be seen today on the walls of the castle (now called Camber Castle) and in "great plenty" still, due to special conservation measures negotiated with the Department of the Environment at present carrying out repairs and restoration of the Castle. This slightly astringent Germander, containing tannins and volatile oils was once a popular remedy; no longer used medicinally but still taken as a healing tisanne, it grows also in cliff top turf at Cuckmere Haven, as it grows similarly just across the Channel — together with other continental plants which are rare elsewhere in Britain, offering the intriguing speculation that these plants could be relicts from before the sea broke through to form the Channel? Another plant well-known for its use as a tea, Chamomile *Anthemis nobilis* is often found in the turf of country cricket fields.

Sherard's account of the journey in 1714 continues from Camber with the fording of the River at Rye in the chaise, and he comments that as they cross into Kent they frequently found Indian Hemp *Cannabis sativa*, today notorious, but in the 18th Century grown for its use as rope. In 1799 it was reported "In consequence of our extensive warfare at the latter end of this century 600,000 cwt was imported".[14] Queen Elizabeth I attempted to encourage growth of the plant in this country and it would seem very probable that this would have been tried around the Cinque Ports, as "the cables, hawsers and other heavy rigging, and the sails and cordage of a first-rate man-of-war required 180,000 lbs of rough hemp for their construction."

The only poisonous grass in Britain, Darnel *Lolium temulentum* was formerly a dangerous cornfield weed; the grains if ground with the wheat and eaten in bread caused symptoms of intoxication, vertigo and somnolence. It was commonly used to fortify beer in the Middle Ages until this became illegal[15]. Since it has been possible to clean seed for farmer's crops the Darnel is only found on rubbish tips where it occasionally grows from the cleanings from the cages of caged-birds kept as pets.

Finally a few coastal plants from Sussex-by-the-sea. The Marsh Mallow *Althaea officinalis*, with velvet leaf containing mucins used to reduce inflammation, is an attractive seaside and estuary plant. Seaweeds including *Fucus* sp. contain iodine, but in fluctuating quantities not sufficiently stabilised for pharmaceutical use. A wild flower from Greece, the Starry Clover *Trifolium stellatum* has been well-established at Shoreham Harbour since 1804. In 1980 another Greek ship the Athenae B was stranded on Brighton Beach with a cargo of pummice after heavy storms. Could this perhaps have bought new seeds which could naturalise to add in the future to the changing tapestry of the wild plants through the history of the County?

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Correction. The printer regrets an ommission in the first paragraph under the heading "Books" in the August edition of the *Pharmaceutical Historian* which should have read:—

Costs have tended to restrict the publication of new books in colour, and therefore pharmaceutical historians will be envious when they handle "Pictorial History of European Medicine and Pharmaceutics" by Jósef Antall. The author is the director of Semmelweiss Museum of Medical History, Library and Archives, Budapest, and together with the publisher Corvina Kiadó, Budapest is to be congratulated on the excellent quality of the colour plates depicting Europe's medical past.

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Health and Sanitation in Southampton at the end of the 19th Century.*

By M.W. DOUGHTY

The treatment of questions of health and sanitation in Southampton underwent radical change from 1890-1905. A number of major schemes of reform were instituted in this period, two of which form the subjects of this paper. These were, the creation of a purpose built infectious diseases isolation hospital, and the inauguration of a substantial measure of clearance of insanitary slum property, leading to the creation of the City's first council housing. These schemes cost, altogether, some £113,000. This was no small sum of money, but the true significance of the schemes is not their cost, but the fact that the Corporation itself took responsibility for them. For Southampton, the schemes represent an unprecedented extension of municipal responsibility, and this paper explores the process by which the Corporation was brought to accept these burdens. In so doing, it will note the unusual threats to the City's health resulting from its docks and their foreign trade, and will also explore the role of the Medical Officer of Health in devising responses to the problems the City faced. The City's initiatives coincided with Dr A. Wellesley Harris's tenure of the position of Medical Officer, and Harris later claimed to have been largely responsible for instigating action in these areas. The justice of these claims must be explored.

At the time of Harris's appointment in 1890, the City's provision for the isolation of infectious diseases consisted of a converted private house, accommodating a maximum of 31 patients (a total attained by the expedients of using nurses' accommodation for patients and sleeping members of the same family, and of the same sex, two in a bed). Only a single disease could be isolated at one time. Such provision was inadequate in terms of accommodation (at the contemporary norm of one isolated bed per 1,000 people, Southampton required 65 beds in 1892), but the peculiar character of the City is a seaport made this inadequacy more serious. In 1895 some 190,000 passengers and ships' crews used the port, bringing with them danger of unusual infectious diseases. Smallpox and cholera were not unusual at this time, but in addition, Southampton had to face yellow fever and, in 1901, plague. These threats made the City's inability to isolate more than one type of disease at a time extremely dangerous.

Harris noted these dangers in his Annual Reports, but his advocacy of improved facilities did not prove successful until events reinforced his warnings. In 1893 the combination of smallpox and measles epidemics, causing at least 53 deaths in the Borough, prompted the provision of additional accommodation in the form of a floating isolation hospital mainly for cases arriving from overseas. The *City of Adelaide* was purchased and converted, thus doubling the accommodation available.

In 1895 and 1896 a major outbreak of scarlet fever occurred. In the latter year, over 900 cases required isolation — in itself more than the City's hospitals could accommodate. The problem was further complicated by the arrival of smallpox from abroad. In these years, on average, only 1 in 3 infectious patients could be effectively isolated, a situation which provoked Local Government Board enquiries in 1896. By then, however, the Corporation had taken action and decided to build an additional isolation hospital capable of handling 72 cases and of effectively isolating four types of disease simultaneously. The design was closely based on recommendations made by Harris in 1892. The hospital was opened in 1900.

The Corporation's responsibility for the provision of an isolation hospital was never questioned. This was not the case, however, in respect of housing conditions in the Borough. Two factors brought this matter to prominence in the early 1890's. The first was a local campaign for reform, led by radical councillors, the second was the Housing of the Working Classes Act (1890). The Act required Medical Officers of Health to bring cases of insanitary or overcrowded accommodation to the attention of the Corporation, which then had to prepare schemes for clearance and redevelopment. Harris proposed such a scheme in 1893, involving 659 houses, with a population of 2,599. The population density of the areas included in the report was 441.4 persons per acre, compared with a Borough average of 32.4. Southampton's old town, clustered within the medieval walls, thus suffered all the problems of overcrowding, low standards of property and ill health which have come to be regarded as characteristic of the 19th century industrial city.

Following Harris's recommendation, the Corporation began work on a section of this area in 1895. This scheme, the 'Simnel Street and West Quay Improvement Scheme' affected 128 houses and 898 persons. Two questions had then to be decided — the first concerned the nature of the dwellings which should be erected as redevelopment, the second, the question of who should build them. Harris's influence can be traced in the solution of both problems.

Harris's role in the design of the buildings eventually erected is clear. His Annual Report for 1894, describes the three types of dwellings erected — a municipal common lodging house, a block of flats, and a set of tenement houses. He provided detailed drawings, descriptions and costings which clearly guided the Corporation, and incidentally demonstrated his mastery of contemporary debate on the provision of housing for the urban poor.

More unexpected was the decision, which emerged between 1895 and 1898, that the Corporation itself should provide all the redevelopment housing. The original intention was to lease the cleared sites to private developers, and the history of the change of plans is still not entirely clear. It is apparent, however, that the most consistent advocate of municipal responsibility was Harris who, as early as 1891 had recommended a policy of municipal provision.

He was largely responsible for associating Southampton with national trends, emerging at the time, which involved the rejection of laissez faire approaches to problems of health, sanitation and housing, in favour of an extension of municipal responsibility. Thus, when Harris left Southampton in 1901, he had not only improved the City's provisions in these fields, but had also secured the adoption of policies which placed Southampton abreast of new national initiatives in facing the problems created by urban industrial society.

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*Synopsis of a paper given at the Spring Conference, Winchester, March 27-29.

The President and Officers wish all readers a Happy Christmas and a Successful New Year

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Apothecaries and the development of sea bathing*

By T.D. WHITTET

Since Brighton was one of the earliest sea bathing resorts it seems appropriate to devote one of our historical papers to the development of sea bathing, especially as several apothecaries played an important part in it and thus helped to turn the small village of Brighthelmston into the famous resort of Brighton.

Baths of various kinds have been used for medicinal purposes from ancient times. King[1] wrote "Some say Cleophanthus, son of Thermistocles, a physician of Corinth, others say Antonius Musa, a famous physician of Rome" invented hot and cold bathing, but continued "certain it is that Asclepiades brought them into the most universal Request."

He also mentioned Diascorides using sea water, Hippocrates recommending hot and cold bathing, and that Francis Bacon "tells us that Bathing is conducive to health and prolongation of life and that Galen had advised that infants should be sprinkled all over with salt" thus anticipating saline baths.

Richard Russell[2] stated that Diascorides devoted a chapter of one of his books to the virtues of sea water and that Pliny also discussed it. Speed[3] quoted Hippocrates as saying that sea water is constipating and stated that its external use was well known to the ancients including Hippocrates and Galen.

Matthews[4] mentioned Richard de Montpellier, apothecary of Edward I supplying "aromatics for the bath" during the King's illness in 1306 and that "As apothecary to the Queen (Elizabeth I) (John) Hemingway, like his predecessor (Thomas) Alsop, had to undertake the preparation of what he notes as "the Bane," namely the bath." Alsop's bill included "for the bayn, bagges with herbis, sponges, muske, cyvet, *ut patet* (as detailed), 5s.8d".

The Oxford English Dictionary quotes from the manuscript of 1591 by Sir. Jerome Horsey describing his travels in Russia as saying "He commaunds the master of his oppathicke...to prepare and atend for his solace and bathinge. One sent...to the oppatheke for marigold and rose water."

John King

One of the earliest apothecaries to write about bathing was John King[1] of Bungay who published in 1737 an "Essay on Hot and Cold Bathing." Unlike many books of that period it was written in English not Latin. This was not from lack of knowledge of that language as in 1772 King wrote in Latin "A Letter to Dr. J. Freind about primary and tertiary epidemics.[6]

In his essay King reported on nine years of experience with his cold and warm baths and a "Bagnio or Hummums" which could be "heated to the degree that the patients' diseases required." He went on to outline the usefulness and modes of operation of his baths, giving cautions and precautions and lists of diseases in which they were said to be beneficial. These included rheumatic and arthritic conditions, colic, wasting diseases, etc. He described case histories of numerous patients treated.

An appendix by "a gentleman of superior abilities" commented on King's methods including his use of mineral waters. He also gave an interesting description of King's baths:

"Upon the neck of the Peninsula the Castle and Town of Bungay is situated on a pleasant Ascent to view the Pride of Nature on the other Side, which the Goddesses have chose for their earthly paradise; where the Sun at its first Appearance markes a kindly visit to a steep and fertile Vineyard richly stor'd with the choicest Plants from Burgundy, Champaigne, Provence, and whatever the East can furnish us with.

Near the Bottom of this is placed the Grotto or Bath itself, beautified at one side with Oziers, Groves and Meadows, on the other with Gardens, Fruits, shady Walks and all Decorations of a rural Innocence.

The Building is designedly plain and neat, because the least attempt of artful Magnificence, would by alluring the Eyes of strangers, deprived them of the profuser Pleasures which Nature has already provided.

As to the Bathing there 'tis a Mixture of all that England, Paris or Rome could ever boast of; no one's refus'd a kind Reception, Honour and Generosity reigns through the whole. the Trophies of the Poor invite the Rich, and their more dazzling Assemblies compel the former."

Bartholomew Dominiceti

Another 18th century advocate of bathing was Dr Bartholomew Joseph Alexander de Dominiceti, a native of Venice who styled himself as "Lord de Cete et de Cortesi, Knight of the Holy Roman Empire and Noble of Venice."

He had practised as a chemist and apothecary in his native city which he left because, he wrote, he had been "opressively exiled for gallantly but not prudently resenting an injury done to his honour."

He went to Bristol in 1753 and there established what were claimed to be the first medicinal baths of their kind in Europe. An account of them has been given by Hill.[7] They were " 'arbitrarily heated and medicated vapour baths, water baths, fumigations, frictions and other operations therewith connected.' The keynote of the establishment; the marble bath of 'sixty feet circle' was set in a grove of blossoming trees and shrubs; the ladies were catered for by their own bath 'contiguous but secluded;' dressing rooms and bedchambers were equally select. In short, as the Doctor's pamphlets announced, persons of quality could be bathed and fumigated under the most perfect conditions, and then post to Bath — only an hour away — for a course of the waters to complete their cure.

Persons of quality and others with money to spare (for Dominiceti's baths were by no means a cheap form of treatment) flocked to his premises on College Green."

Dominiceti was resented by established medical practitioners and in 1762 he issued "A short and calm apology of Bartholomew de Dominiceti from Venice, Physician, Surgeon and Chymist, in regard to the many Injuries and repeated Affronts he has uncalled for met with during the six years he has been in Bristol; with a word or two to his unprovok'd enemies."

Hill[7] considered that "The chief of these, it seems, was a rival apothecary and Dominiceti, after much learned abuse, bantered him in doggerel verse, comparing him with a mongrel baying to the moon:—

'In vain, sweet Cur, must you bark on,
I'll shine as I have ever done.' "

In 1764 Dominiceti moved to London, setting up, first at Millbank and in the following year at 6 Cheyne Walk, Chelsea. There he had "a large, pleasant and convenient house, which contains four spacious and lofty parlours, two dining rooms and thirteen bed chambers, to accommodate infirm ladies and gentlemen of rank." In the garden he erected an elegant wood and brick building communicating with the house and measuring some sixteen feet wide by one hundred feet long. Here were installed the baths and fumigating stoves and here too were four

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sweating bed chambers, to be directed to any degree of heat.'

The bath water and 'the vaporous effluvia of the stove' could be impregnated with the essence of such herbs as were most efficacious for the patients' particular treatment."

The establishment is said to have cost over £37,000. During the next 15 years Dominiceti had thousands of patients including Edward, Duke of York, brother of George III and Sir John Fielding. Hill quoted a testimonial of the latter "the Thames and the gardens and grounds are his great Apothecary's shop, the one furnishing him with water, the other with herbs."

In 1771 he was prosecuted for alleged forgery but not only was he acquitted but the court recommended him to prosecute his accusers for conspiracy. Hill gave several examples of his testimonials and case histories. In 1782 Dominiceti became bankrupt and faded from public view.

Rodomente Dominiceti

Batholomew's son Rodomente, however, set up an establishment in Panton Street, Haymarket, which has been described by Phillips[8]. There he offered the public a large variety of curative baths at prices starting from 2s.6d. for the use of the cold bath and rising to fantastic sums for the warm baths impregnated with sweet oil, balsam or virgin milk.

It has a cold bath or Frigidarium measuring 22 ft by 10 ft and 4 to 6 ft deep and surrounded by a gallery and changing rooms. Spring water constantly ran in and out and it was emptied once a day. It could either be used alone or after the patient had gone through different degrees of heat. The Calidarium was filled freshly for each comer. Patients were expected to bring oil-caps and woollen or linen garments, although they could hire the latter from the doctor's servants at 1s.6d. a time.

Tickets could be bought by patients "in middling circumstances". A twenty guinea ticket entitled the purchaser to 120 treatments per year. There was a separate approach to the ladies' apartment. This establishment was not successful and Rodomente went bankrupt two years after his father.

He had married in 1781 Mary Page whose guardian lived in Ampthill and they rented part of a house in Silsoe. This displeased Lord Hardwick who thought his peace would be disturbed by hoardes of patients and he forced their landlord to give them notice. They moved to Ampthill and set up an establishment there. This appears to have been successful as Rodomente quoted testimonials from numerous persons in his "Dissertation and the Artificial Mineral Baths" which went into at least three editions.

The following advertisement appeared in the Northampton Mercury of Nov. 11th. 1786:—[9]

"Dr Dominiceti (Late of Panton Square, London) respectfully acquaints the nobility and gentry, that he has erected in Ampthill, in the county of Bedford, an Apparatus of Artificial Medicinal Water, Vaporous and Dry Baths, Partial Pumping, etc., for the Reception of those persons who labour under the following Diseases, viz. King's Evil, Scurvy, or any other impurities of the Skin, Asthmas, Atrophies, Dropsies (provided the patient has not been tapp'd), Consumptions, Palsies, Hysteric and other Disorders of the Nerves, and several local outward and inward Complaints, for the Cure of which his Process is particularly prepared and adapted, and in many Cases he has succeeded when all other medical Efforts have failed.

His House is pleasantly situated, and capable of accommodating several Patients. The operations are mild, and the Afflicted that apply to him for Relief may receive satisfactory Proofs of their Efficacy in the above-mentioned Complaints."

"The Doctor has lately added to his apparatus, a Machine of his own invention, by which many internal Complaints, that were before thought incurable, or very tedious and troublesome to remove, are now more easily cured or relieved. This machine is applicable to disorders of the Ears, Throat, ulcers in the Bladder, Urinary Passages, etc."

In 1790 he published a pamphlet from East End House, Flitwick, in which he takes "the liberty of acquainting the Nobility and Gentry that having found his house at Ampthill too small for his Practice he has taken East End House on a long lease, where he has erected a neat and convenient apparatus for the Preparation and Application of his various artificial Medicated Water, Vaporous and Dry Baths, Internal and External Suffumigations, Frictions, Pumpings, etc.

The House is pleasantly situated, it stands in a Small Paddock on a dry gravelly soil, bordered by a Mill and a large Mill Stream and by several Farms and other rural Houses, the ground is ornamental with a good Kitchen-garden, Fish-ponds of constantly moving water, at a suitable Distance from the Mansion...

His House being roomy, he has no Objections to Board and Lodge by the year, or the Quarter any Lady or Gentleman, that should like to spend a few months, or retire in the Country; they may have Physical Advice in the House, and the best of Medicines if required.

...In the Environs are several Noblemen's Parks. The Roads are dry and good in Winter as well as Summer. There are two Waggons that come to Ampthill; one of them twice a week, and setts off from the Windmill Inn, St. John Street; and a Stage Coach that goes every other day from the Cross Keys, St. John Street, London. Two Packs of Hounds are kept in the neighbourhood.

Those that choose to Board themselves may be supplied with a Kitchen for their own private use."

At this establishment, which he rented from George Brooks of Flitwick Manor, the doctor offered to treat a wide range of afflications from white swellings to hysteria.

Dominiceti claimed to be a Diplomat and Master of Arts of Padua and a Count of the Holy Roman Empire. He left Flitwick in 1806 and settled in London, living first in Oxford Street and then at 3 Little Titchfield Street. He died at Flitwick on December 9, 1817 and on February 4, 1820 probate of his will was granted to his son Bartholomew. His widow Mary died near London on November 15, 1828.

Richard Russell

Richard Russell is generally regarded as the pioneer of sea bathing and has been called "Sea-Water Russell"[10] and the "Founder of Brighton".[11] Abraham[10] commented "The waters of inland spas, such as Bath and Tunbridge Wells, have been recognised as curative, externally and internally for centuries; but no one thought of using sea-water in either way until Richard Russell, M.D., F.R.S. (1687-1759) wrote two books in Latin, on its efficacy in the cure of enlarged glands.[2] The first work appeared in 1750, the second in 1755."

Short biographies of Russell have been published by Challen[12] and by Lauste.[13] This account is based on their papers and on a search of the Minute Books of the Society of Apothecaries[14] from which I have discovered some previously unpublished information about the Russell family. Russell gained a place in the Dictionary of National Biography[15] but Challen has pointed out that it is incorrect as its author confused him with another Richard Russell who practised at Ware and is the only person of that name mentioned in Munk's Roll of the College of Physicians.[16]

On March 7, 1631/2 Richard Russell, son of Nicholas of Lewes, Yeoman, was bound to Robert Walker, Citizen and Apothecary of London, for 8 years. Walker died in 1635 and left £5 to Richard Russell and also mentioned among his beneficiaries a friend Thomas Brooke, apothecary of Lewes.

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The latter was probably the Thomas Brooke who was called a grocer when he married Richard Russell's sister Elynor in 1624, both being of Lewes.

On August 31, 1637 Richard Russell was turned over to John Lorymer, partner of his deceased master. This Richard was the grandfather of "Sea-Water Russell."

Richard (I) did not take up his freedom of the Society of Apothecaries for many years as it was not until January 2, 1671/2 that "Richard Russell having served Mr Walker and Mr Lorrimer (sic) 8 years above 30 years since desires his freedom and was referred to the next Court."

On the 4th. "As formerly desires his freedom in regard that he lives at Lewes desires that he may bee free from all offices and proposes to give 10lb. The Court are willing to let him bee exd. & to make him free but refuse his proposall to free him from all offices."

On the 8th. "having svd. Mr. Waker (sic) & Mr. Lorrimer as by the bookes appears & by the testament of Moses Browne, founder, and Mr. Jon. Cropper long since desires his freedome & to be free from all offices. The Court makes him free and he promiseth to pay 20lb. and referred himself to the Ca. either to accept it in lieu of all offices or else to retorne the money & leave them to their owne freedom to elect him. Payes his fees and 13s.4d. in lieu of a spoone."

Richard Russell (1) is known to have had a son John but none of the biographers of his grandson appears to have been aware that John was also an apothecary.

I found that on August 15, 1672 John Russell "having served his father in Sussex is exd. appr. & referred to the Colledge made free by patrimony & paid in lieu of a spoone 13s.4d. pmiseth the Company 5lb. for wch. he gave Mr. Butler a note." There is no note of his binding but he was evidently in practice in London as Walter Marshall was bound to him on September 8, 1672 when he also paid "cornemoney." A minute of April 13, 1673 confirms his relationship to Richard (I) "Richard Russell of Sussex, a freeman, desires an appr(entice) might be turned over to him. Was debated but the Court being informed that he was to serve Jon. Russell his son who hath an appr. allready & that this was to defraude the Compa.d of his Livery fyne...it was refused."

The fact that John's freedom came within a year of that of his father suggests that he had been practising without being free of the London Company but decided to take advantage of his father's freedom to gain his own by patrimony. Richard (I) died in 1684.

John was not the father of Richard (2) who was the son of Nathaniel, born in 1657, in the parish of St. Michael's Lewes, who was probably the elder son of Richard (I). He married Mary Ellis and practised as an apothecary in Lewes but does not appear to have become free of the London Company. He died in March 1712/13.

Richard (2) was apprenticed to his father and during that time he fell in love with a wealthy heiress, Mary Kemp, the daughter of one of his father's most important patients. Knowing that neither of their parents would approve the young couple eloped and were married in 1719 at the church of St. John Sub-Castro, Lewes.

Mr Kemp was furious but, according to Lauste[13] "relented because of his love of his daughter and the excellent qualities of his son-in-law." Challen,[12] on the other hand, stated that Kemp's will evidenced animosity as Russell was not to have any power in the trusteeship of the estate and Mary's male heirs were to assume the name of Kemp. Mary was not, however, disinherited so there must have been some reconciliation.

Russell, probably with his wife, went to Leyden where he studied under Boerhaave and graduated as a Doctor of Medicine in 1724 with a thesis on epilepsy in children.

On his return to England he practised in Lewes until the death of his father-in-law from whom his wife inherited the property of South Malling Deanery where he went to live and practice.

In 1750 he published "De tabe glandulari, sive de usu aquae marinae in morbis glandularum dissertatiio."[2] recording his experience over 25 years.

The book brought Russell fame and in 1752 he was elected a Fellow of the Royal Society. An unauthorised English translation by "An eminent physician" was published in 1752 and another edition in Dublin in 1753. The pirated edition continued to appear in several editions over many years with additions including a translation of John Speed's book and accounts of mineral waters and the spas.[2 b-e]

Russell was so angered by the unofficial translations, which he said were inaccurate as well as being unauthorised, that in 1753 he published a translation entitled "A Dissertation concerning the use of Sea Water in Diseases of the Glands."[2a]

Also in 1753 because of the great increase in his practice and the desirability of Brighthelmson for sea water treatment he built Russell House near the sea-shore "to the south of the Steine, lying near the Pool Bank," on the site now occupied by the Albion Hotel, where he moved in 1754. A few years after Russell's death the house was rented by the Duke of Cumberlans, brother of George III, who invited his nephew, the Prince of Wales to visit him; this the Prince first did in 1783 and so began his long connection with Brighthelmston, which contributed so much to the growth and importance of the town. A memorial tablet on the wall of the Albion Hotel states of Russell "If you seek his memorial look around."

Richard Russell died in 1759 and is buried at South Malling.

Lauste commented "Dr Richarch Russell may well be said to be the father of Brighton and indeed of the seaside and bathing resorts of Britain and perhaps even of the Continent in that his book led to a general interest and acceptance of sea bathing if not as a method of cure than certainly of Health." Abraham considered that Lettsom was greatly influenced by his teaching and this probably led to his foundation of the Sea-Bathing Hospital.

In 1755 Russell published his second book "Oenecomia naturae in morbis acutis et chronicis glandularum,[17] which he himself had translated into English and published under the title of "The Economy of Nature in Acute and Chronical Diseases of the Glands."[17]

In his book on sea water he stated "I had long since observed that the Inhabitants of the Sea-Coast made use of Sea Water in Disorders of the Belly" and "by them I saw this water successfully used and this circumstance pointed out some extraordinary observations of its virtues, which led the way to diligent enquiries. Besides I had experienced that Glauber's Salt was an excellent Purgative in many cutaneous disorders and resolved to try the effects of Sea-Water in like Cases, and I presently found it was an excellent Medicine in Disorders of the Cutaneous glands.

He also stated that in 1730 he had read in the book "The Domestic Companion" that Sea Water was advised as a convenient purge for sailors and that a surgeon called Webb had pressed him to try it as a remedy.

Russell reported successful results in 29 cases including those of King's Evil, skin diseases including leprosy, rheumatism,, facial herpes, shingles, colic, jaundice and tumours. He also quoted some cases of D. Turner, an apothecary of Brighthelmston.

He added "Sea Water is endued with many and great Virtues: but the Unskilful may make a very bad use of it."

[To be concluded]

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